



Preview - Information



Thank you for your interest in this Mega Bundle. This product contains multiple Workbooks and Google Lesson Slides. Within this preview, you will see:

- ✓ A selection of Ready-To-Use Google Lesson Slides for each unit.
- ✓ A selection of worksheets included in each workbook.

When you make a purchase, you will receive a folder that contains each of the .pdf workbook files and links to where you can make copies of the Google Lessons units to your Google Drive.

Thank you for shopping with us. Please let us know if you have any questions at:

rob@supersimplesheets.com



Google Slides Lessons Preview





Alberta Math Curriculum Shape and Space – Grade 3

3-Part Lesson Format

Part 1 – Minds On!

- Learning Goals
- Discussion Questions
- Quotes
- And More!

Learning Goal

We are learning to use units of time, including seconds, minutes, hours, and non-standard units, so we can describe how long different events take.



Non-Standard Units - How Much Time Has Passed?

Drag the numbers and labels to determine how much time has passed using non-standard units of time.

Handwashing And Or 1 2 3 4 5
Drinking Water Clipping 6 7 8 9 0

Elapsed Time	Non-Standard Units - How Much Time Has Passed?
1) 15 seconds	1 Drinking Water And 5 Clipping
2) 25 seconds	
3) 30 seconds	
4) 60 seconds	
5) 30 seconds	
6) 95 seconds	
7) 70 seconds	

Part 2 – Action!

- Writing
- Matching
- Drag and Drop
- Drawing
- And More!

Part 3 – Consolidation!

- Exit Cards
- Quizzes
- Reflection
- And More!

Non-Standard Units – Word Problems

- 1) Noah went to a swimming lesson and a field trip. How many hours did he spend altogether?
- 2) Ethan had 10 hours for weekend fun. He went to one birthday party and two swimming lessons. How many hours did he use? How many hours did he have left?





Alberta Math Curriculum Shape and Space - Grade 3

Estimating Measurements - Referents

Decide which referent would be most suitable to measure the length of the following objects. Drag m or cm to answer.

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

m cm

is longer. Drag the checkmark to your answer.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Measure the height of the lamps below. Drag the numbers to answer in the white box.

1 2 3 4 5

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

cm cm cm cm cm



Alberta Math Curriculum Shape and Space – Grade 3

Metric System – Metres and Centimetres

Which unit would you use to measure the things below. Drag the labels to answer.

		Metres		Centimetres	

Metric System – Metres and Centimetres

Which unit would you use to measure the things below. Drag the labels to answer.

Pair of socks	Cat	Toothbrush	Sandwich	Television	Bookshelf
Scissors	Guitar	Headphones	Picture frame	Bicycle	Perfume

Identifying Shapes

Identify the shapes to answer.

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
			<input type="text"/>

Properties of a polygon:

- 2-dimensional
- Closed shape
- Straight sides



Workbook Preview





Grade 3 Geometry



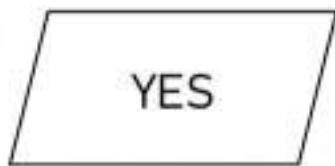
	Curriculum Expectations	Pages
G.1	<p>Students relate geometric properties to shape.</p> <ul style="list-style-type: none">Investigate the relationships between the sides of a polygon, including perpendicular, parallel, and equal, using referents for 90° or by measuring. <p>Preview of 130 pages from this product that contains 328 pages total.</p> <ul style="list-style-type: none">Sort polygons according to geometric properties and describe the sorting rule.Classify polygons as regular or irregular using geometric properties.Examine geometric properties of polygons by translating, rotating, or reflecting using hands-on materials or digital applications.	- 63
TQ	Tests and Quizzes	64 - 66



Name: _____

5

Introduction to Polygons








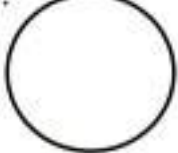


Polygons

- Two-dimensional
- Closed shape
- Straight sides



Part 1 Is the shape a polygon? Write yes or no below the shapes

1. 	3. 	4. 	5. 
6. 	7. 	8. 	10. 

Part 2 Draw polygons and non-polygons

1)	2)	3)	4)	
Polygon	Polygon	Polygon	Polygon	Polygon
6)	7)	8)	9)	10)
Non-Polygon	Non-Polygon	Non-Polygon	Non-Polygon	Non-Polygon


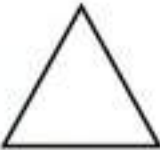
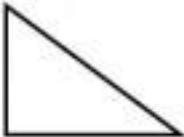






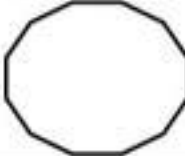
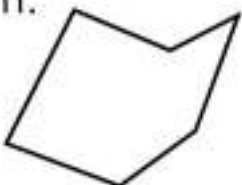




Name: _____

7

Sides of a Shape

Part 1

How many sides does the shape have?

1. 	2. 	3. 	4. 	5. 
6. 	7. 	8. 	9. 	10. 
11. 	12. 	13. 	14. 	15. 

Part 2

Draw a shape with the correct number of sides

1)	2)	3)	4)	5)
4	3	6	8	10

Sides of a Shape Word Problems

Questions

Answer the questions below

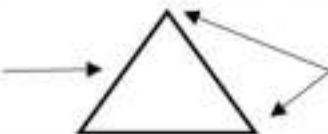


	Word Problems	Answers
1	Ethan built 3 fences using shapes. He used a triangle, a quadrilateral, and a pentagon. How many sides do the fences have in total?	
2	Maria drew a shape with 6 sides. She then drew another shape with 4 sides. What are the names of the two shapes she drew?	
3	<p>Create a pizza using shapes. Use a circle for the base, triangles for the slices, and other shapes for the toppings.</p> <p>a) Count and write down the number of shapes you used in your pizza.</p> <p>b) How many sides in total do the shapes in your pizza have?</p>	<p>a)</p> <p>b)</p>
4	Draw a garden with different polygons. Use a triangle for a flower bed, a rectangle for the bench, and a pentagon for the fence. Write the number of sides you used in your garden.	

Sides and Vertices

Reminder:

Side



Vertices

Part 1

How many sides and vertices does the shape have?

1.	2.	3.	4.	5.
___ sides	___ sides	___ sides	___ sides	___ sides
___ vertices	___ vertices	___ vertices	___ vertices	___ vertices
6.	7.	8.	10.	
___ sides	___ sides	___ sides	___ sides	
___ vertices	___ vertices	___ vertices	___ vertices	

Part 2

Draw a shape with the correct number of vertices and sides

1.	2.	3.	4.	5.
3 sides	4 sides	5 sides	6 sides	7 sides
3 vertices	4 vertices	5 vertices	6 vertices	7 vertices

Exit Cards

Cut Out

Cut out the exit cards below and have students complete them at the end of class

Name: _____

1) Fill in the blanks about the shape.

Sides: _____

Vertices: _____



2) Draw a shape with 6 sides and 6 vertices.

Name: _____

1) Fill in the blanks about the shape.

Sides: _____

Vertices: _____



2) Draw a shape with 6 sides and 6 vertices.

Name: _____

1) Fill in the blanks about the shape.

Sides: _____

Vertices: _____



2) Draw a shape with 6 sides and 6 vertices.

Name: _____

1) Fill in the blanks about the shape.

Sides: _____

Vertices: _____



2) Draw a shape with 6 sides and 6 vertices.

Sides and Vertices Word Problems



Questions

Answer the questions below

	Word Problems	Answers
1	A shape has 3 sides and 3 vertices. What is it?	
2	Sam has a figure with 4 sides of equal length. How many vertices does it have?	
3	A shape has 4 vertices and 4 sides. What shape is it?	
4	A classroom door is shaped like a rectangle. How many sides and vertices does it have?	
5	A piece of fabric is 10 metres long and 6 metres wide. A裁缝 wants to cut it into a different shape that is 15 metres long and 4 metres wide. How many sides and vertices will the new piece of fabric have if it has the same area as the original piece?	
6	An octagon is featured on a sign. Count the sides and vertices.	
7	A hexagon-shaped frame holds a picture. How many sides and vertices does this shape have?	
8	If a shape has 6 sides, and all sides are equal, what is the number of vertices?	

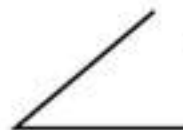
Naming Angles



= larger than
a right angle



= right angle



= smaller than
a right angle

Questions

Label the angles in comparison to a right angle - larger, smaller, right angle

1)



2)



3)



4)

5)



6)



7)



8)



9)



10)



11)



12)



Sorting Angles

Part 1 Sort the angles into the categories below



A

C

D

E

F

G

H

I

J

Angles	Right Angle	Larger than a right angle	Smaller than a right angle
Letters			

Part 2 Sort the angles into the categories below



A

B

C

D

E

H

Angles	Right Angle	Larger than a right angle	Smaller than a right angle
Letters			

Part 3 Circle the angles below


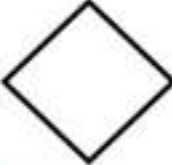
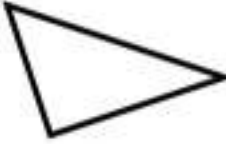
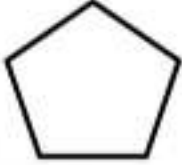
Drawings			
Angles	Right Angle	Larger than a right angle	Smaller than a right angle

Exit Cards

Cut Out Cut out the exit cards below and have students complete them at the end of class

Name: _____

1) Label the right angles & write how many right angles there are

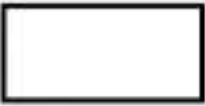
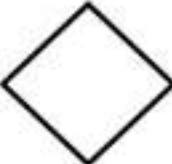
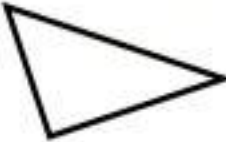

1) 	2) 	3) 	4) 

2) Draw a picture of a shape with the number of right angles it shows below

1) _____	2) _____	3) _____	4) _____
3	1		4

Name: _____

1) Label the right angles & write how many right angles there are

1) 	2) 	3) 	4) 

2) Draw a picture of a shape with the number of right angles it shows below

1) _____	2) _____	3) _____	4) _____
3	1	5	4

Name: _____

Drawing Shapes

Part 1 Draw two different versions of the shapes below

Regular Triangle	Regular Quadrilateral	Regular Pentagon	Regular Hexagon	Regular Octagon
Irregular Triangle	Irregular Quadrilateral	Irregular Pentagon	Irregular Hexagon	Irregular Octagon

PREVIEW

Part 2 Draw a bridge using triangles, quadrilaterals, pentagons, hexagons or octagons



Bridge #1

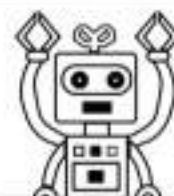


Bridge #2

Name: _____

22

Build a Shape Robot



Draw

Follow the instructions below

Design a robot using regular and irregular polygons. How many regular polygons did you draw? How many irregular polygons?

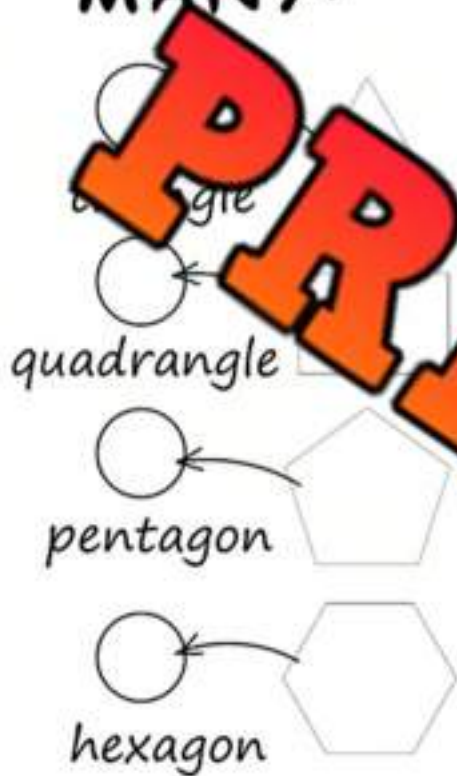
PREVIEW

# Of Regular Polygons	
# Of Irregular Polygons	

Drawing Using Shapes

Directions

How many of each shape can you find? Then colour the diamond.

**HOW
MANY?**

Directions

Draw your own diamond that uses each of the shapes.

Diamond	Shapes	
	Triangles	
	Quadrilateral	
	Pentagon	
	Hexagon	
	Octagon	

Drawing Using Shapes

**Directions**

Colour the shapes below

Colour the shapes the colours below

Circles	Yellow	Pentagons	Green
Triangles	Orange	Hexagons	Blue
Quadrilaterals	Purple	Octagons	Red



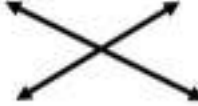



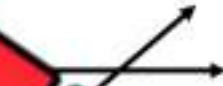



Parallel, Perpendicular and Intersecting Lines











Part 1

Label the lines parallel, perpendicular, or intersecting

1) 	2) 	3) 	4) 
5) 	6) 	7) 	8) 

Part 2

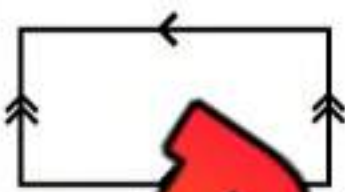



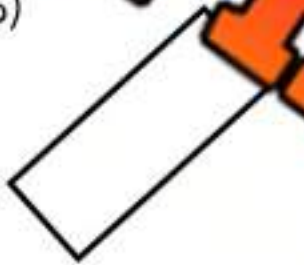


Draw a second line that is intersecting, perpendicular, or parallel to the other line

1)  Perpendicular	2)  Parallel	3)  Intersecting	4)  Parallel
5)  Intersecting	6)  Perpendicular	7)  Intersecting	8)  Parallel

Parallel and Perpendicular Lines in Rectangles

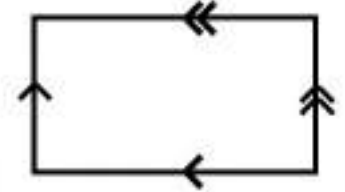



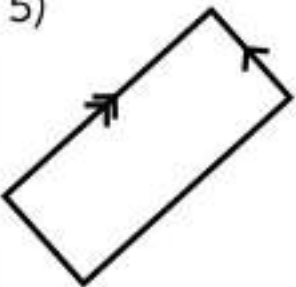
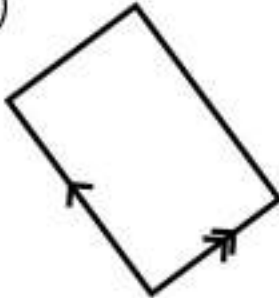
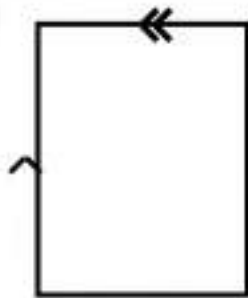
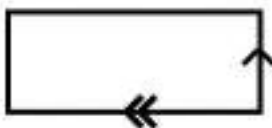
Part 1

Label the parallel lines with arrows. The first one is done for you.

1) 	2) 	3) 	4) 
5) 	7) 	8) 	

Part 2

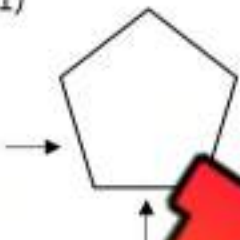
Draw one or two arrows to make the lines perpendicular.

1) 	2) 	3) 	4) 
5) 	6) 	7) 	8) 

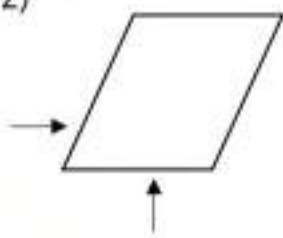
Parallel, Perpendicular and Intersecting Lines in Shapes**Practice**

What is the relationship between the two lines with the arrows

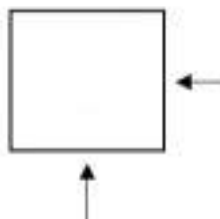
1)



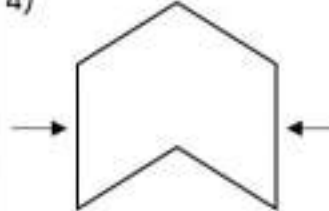
2)



3)



4)



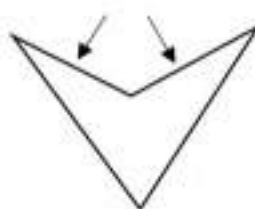
5)



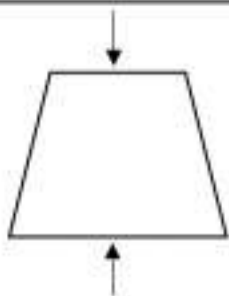
7)



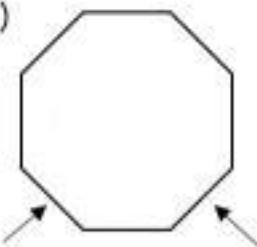
8)



9)



10)



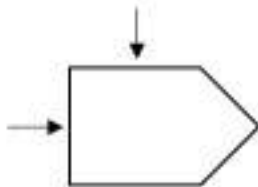
11)



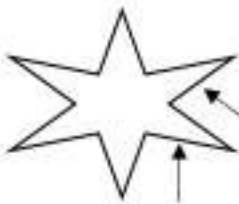
13)



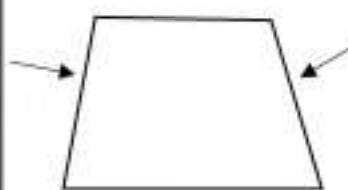
14)



15)



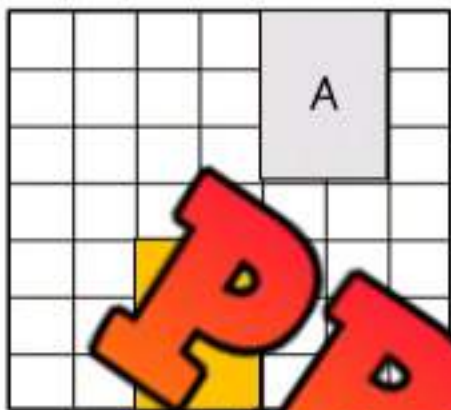
16)



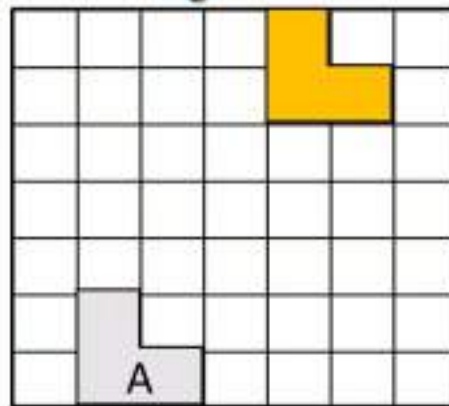
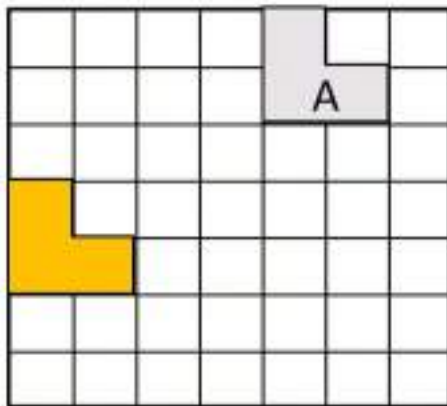
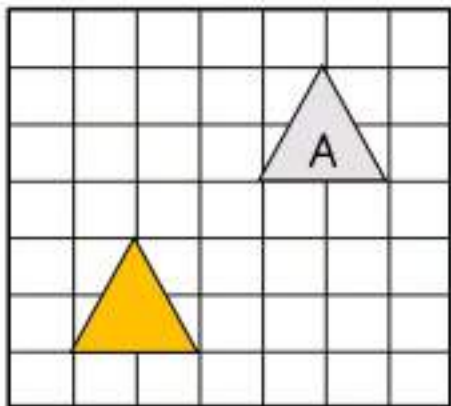
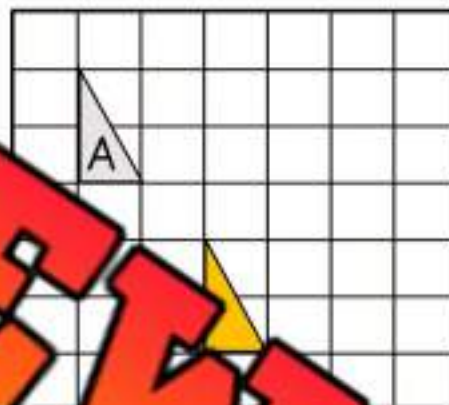
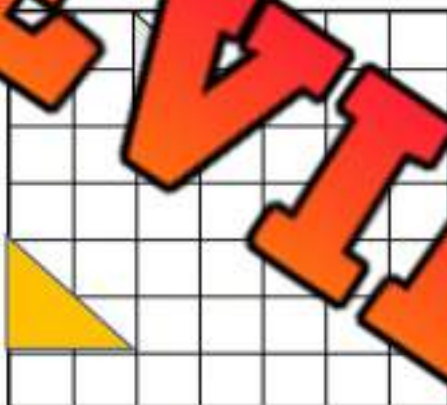
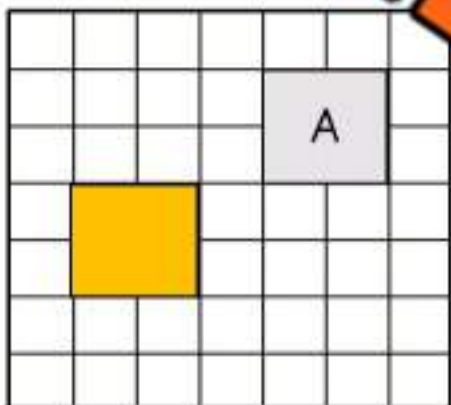
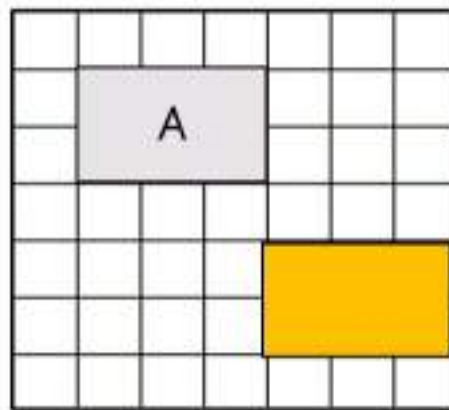
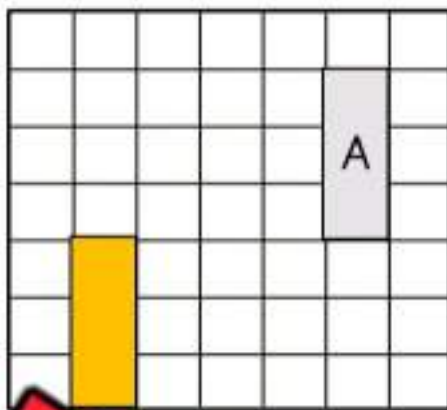
Describing Translation

Instructions

Describe the translations below using arrows. Shape A is the original object



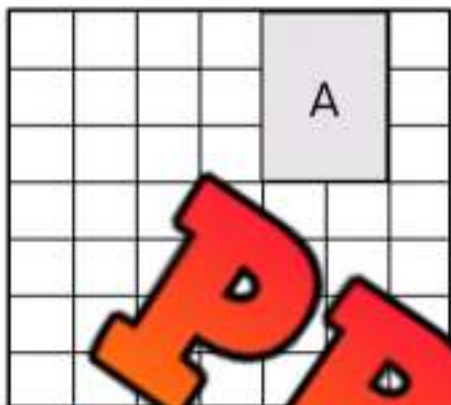
4 ↓, 2 ←



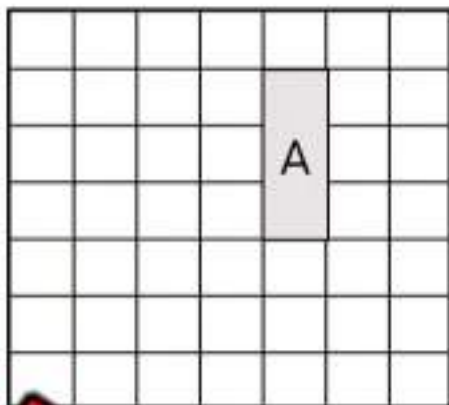
Performing Translations

Instructions

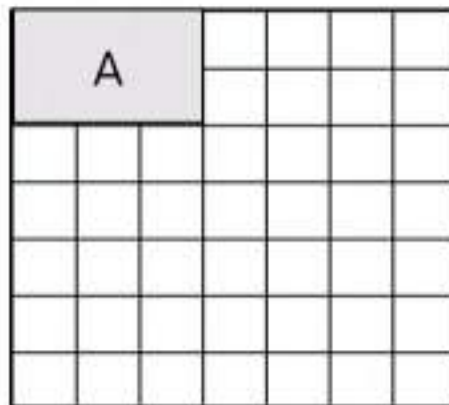
Draw the translations below. Shape A is the original object



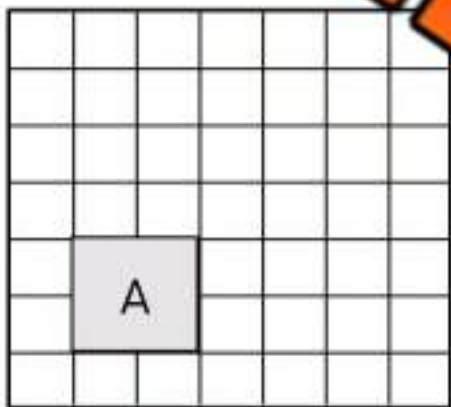
4 ↓



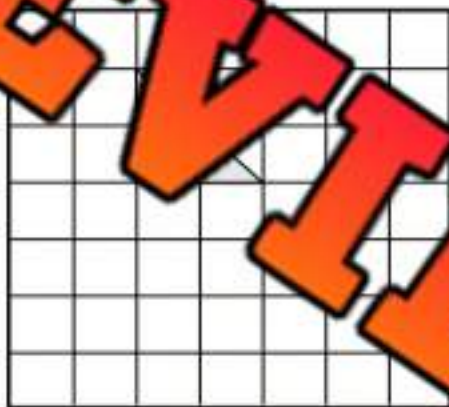
2 ↓, 3 ←



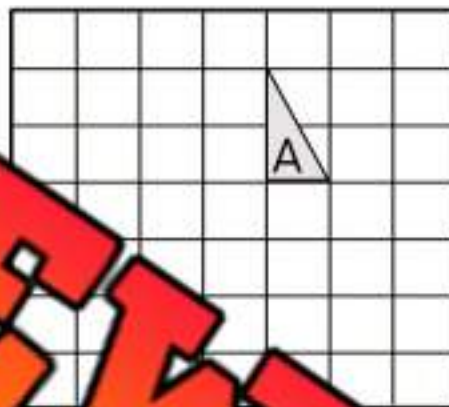
3 ↓, 2 →



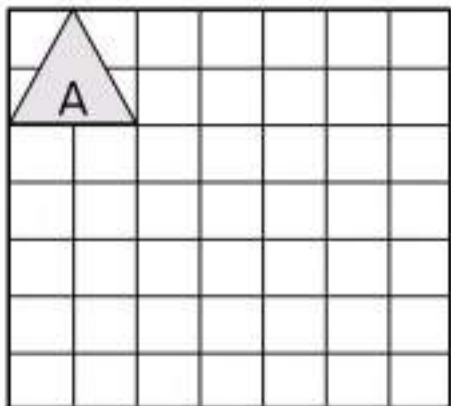
2 ↑, 4 →



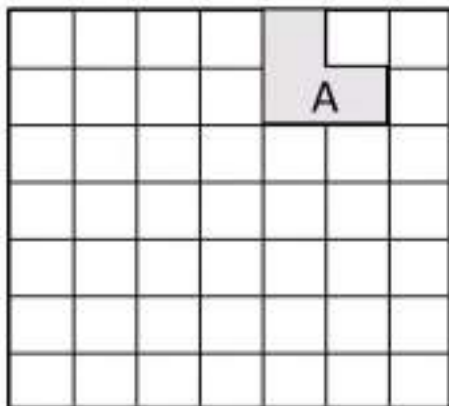
3 ↓, 2 →



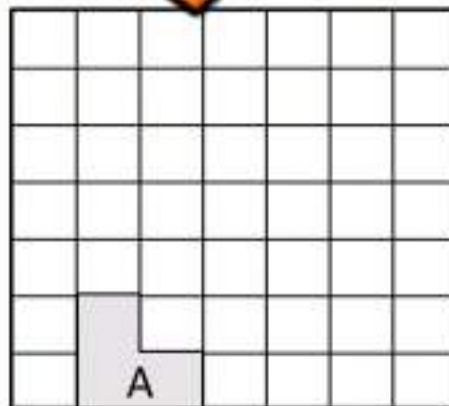
←



3 ↓, 4 →



3 ↓, 4 ←

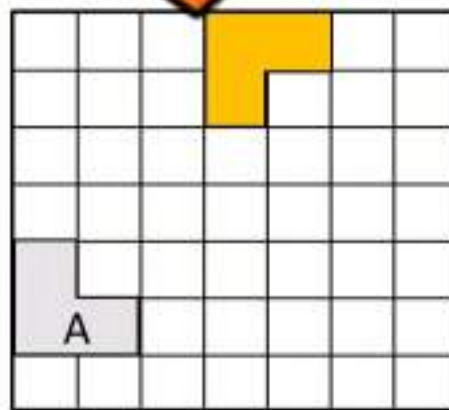
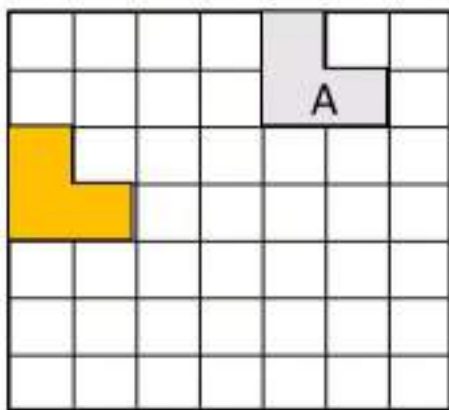
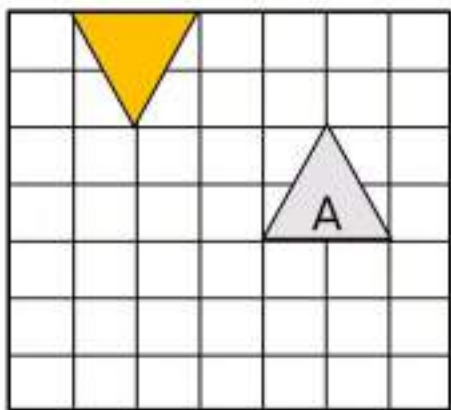
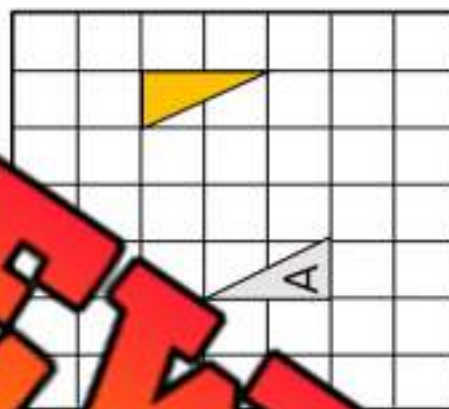
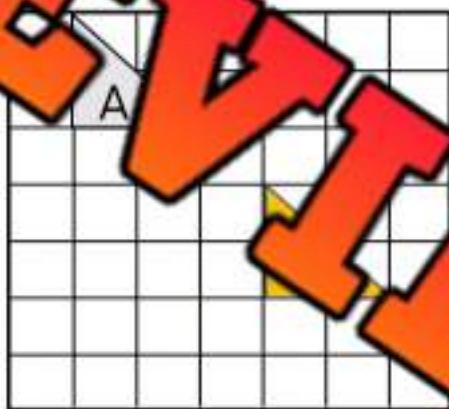
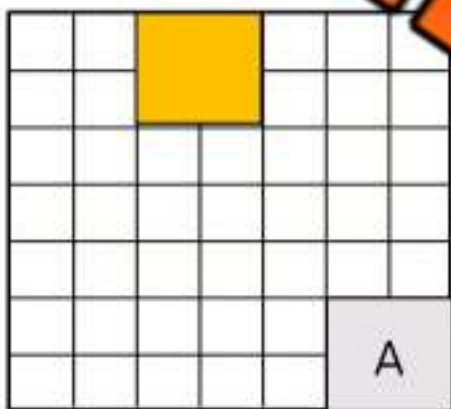
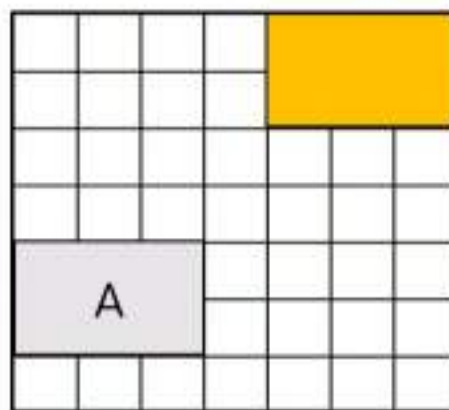
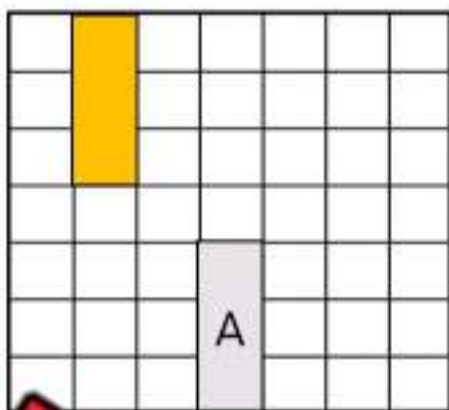
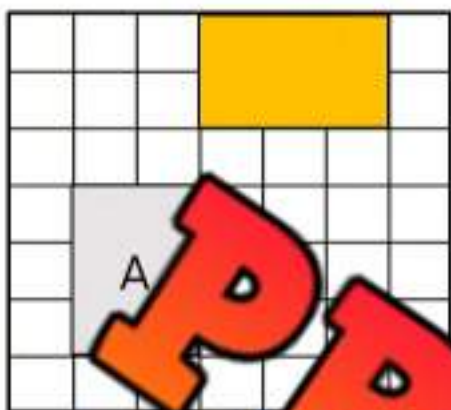


5 ↑, 4 →

Translation or Not?

Instructions

Is the transformation a translation or not? Write yes or no.



PREVIEW

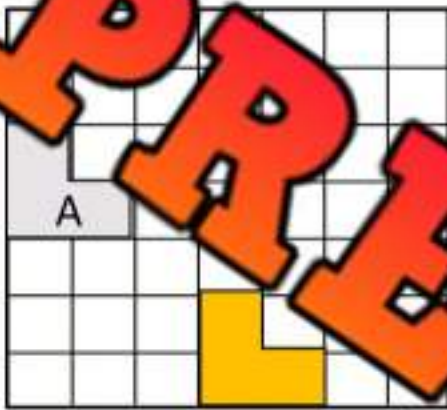
Exit Cards

Cut Out

Cut out the exit cards below and have students complete them at the end of class

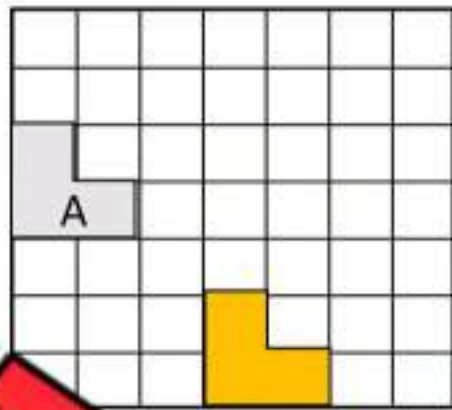
Name: _____

Describe the translation below. Shape A is the original object.



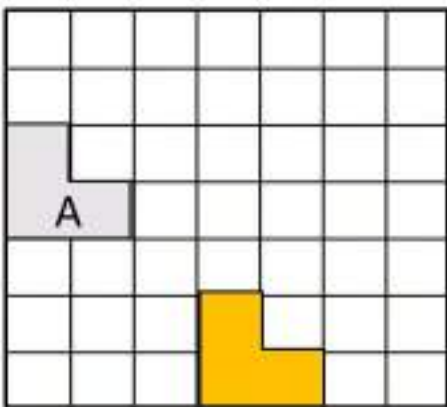
Name: _____

Describe the translation below. Shape A is the original object.



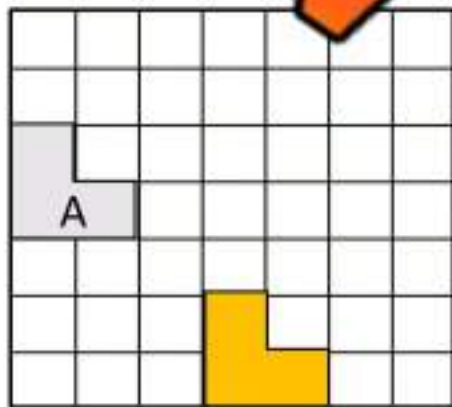
Name: _____

Describe the translation below. Shape A is the original object.



Name: _____

Describe the translation below. Shape A is the original object.



Math Activity: Translation Relay Race

Objective

What are we learning about?

To help students understand and describe translations on a Cartesian plane through a fun and engaging relay race activity.

Materials

What you will need for the activity.

- Graph paper
- Ruler
- Colored pencils/markers
- Pencils and erasers
- Translation task cards



Instructions

How you will complete the activity

1. **Explain Translations:** Start by explaining translations on the Cartesian plane involve moving shapes without rotating or resizing them.
2. **Distribute Materials:** Provide each team with a drawn graph paper and a set of translation task cards.
3. **Form Teams:** Divide the class into small teams, each sitting up behind a desk with their graph paper and task cards.
4. **Translation Task:** The first student in each team picks a translation task card and then strategically draws a shape on the grid, ensuring it can fit after the translation.
5. **Perform Translation:** The student then moves the shape according to the instructions on the task card and draws the new position on the grid.
6. **Pass to Next Student:** The student then goes to the end of the line, and the next student steps up.
7. **Repeat Process:** The next student repeats the process: drawing the shape at its new position, selecting a new translation task card, and performing the translation.
8. **Continue Relay:** Continue the relay until all team members have had a turn or all task cards are used.
9. **Verification and Discussion:** The teacher verifies the translations, and the class discusses the different translations and observations.

Task Cards

Cut out the cards below

Card 1:Move 2 units \rightarrow and 1 unit \uparrow **Card 6:**Move 2 units \leftarrow and 3 units \uparrow **PREVIEW**Move 3 units \leftarrow and 2 units \downarrow **Card 7:**Move 1 unit \rightarrow and 4 units \downarrow **Card 3:**Move 1 unit \rightarrow and 3 units \uparrow **Card 8:**Move 3 units \leftarrow and 2 units \uparrow **Card 4:**Move 4 units \rightarrow and 2 units \uparrow **Card 9:**Move 2 units \rightarrow and 2 units \downarrow **Card 5:**Move 1 unit \leftarrow and 2 units \downarrow **Card 10:**Move 1 unit \leftarrow and 3 units \uparrow

Task Cards

Cut out the task cards below

Card 11:Move 4 units \rightarrow and 1 unit \downarrow **Card 16:**Move 2 units \leftarrow and 2 units \uparrow **Card 17:**Move 2 units \rightarrow and 3 units \downarrow **Card 13:**Move 3 units \rightarrow and 2 units \downarrow **Card 18:**Move 5 units \rightarrow and 2 units \downarrow **Card 14:**Move 3 units \leftarrow and 5 units \uparrow **Card 19:**Move 5 units \rightarrow and 4 units \downarrow **Card 15:**Move 4 units \rightarrow and 3 units \uparrow **Card 20:**Move 5 units \leftarrow and 1 unit \uparrow **PREVIEW**

Name: _____

42

Curriculum Connection
0.1

Grid Paper

1 x 1 cm grid paper

PREVIEW

Reflection or Not?

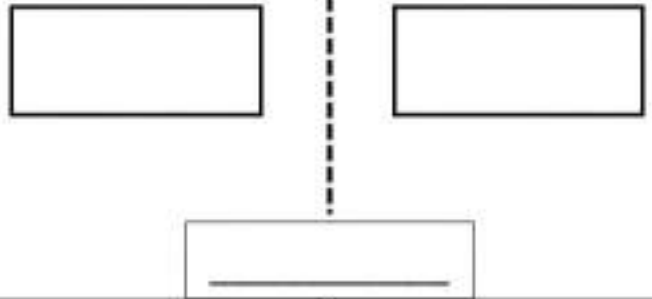
Questions

Is the transformation a reflection?

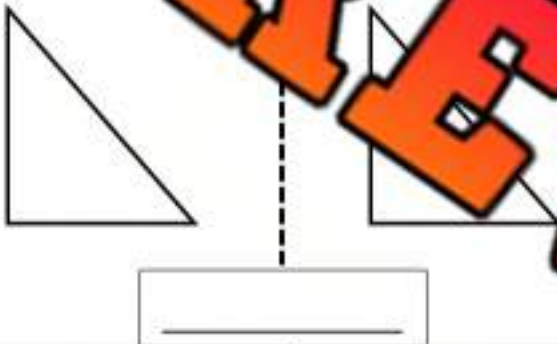
1)



2)



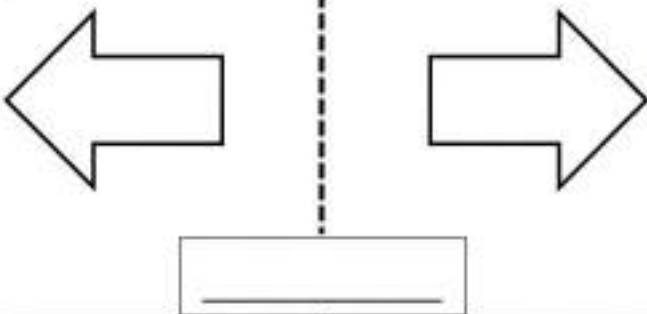
3)



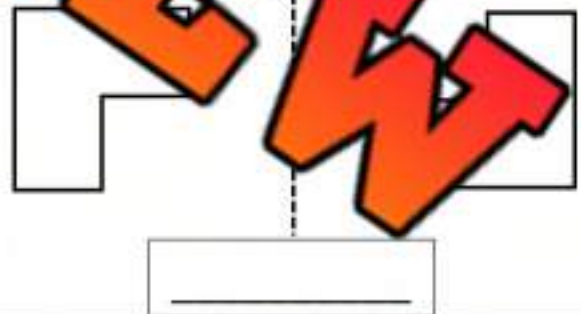
4)



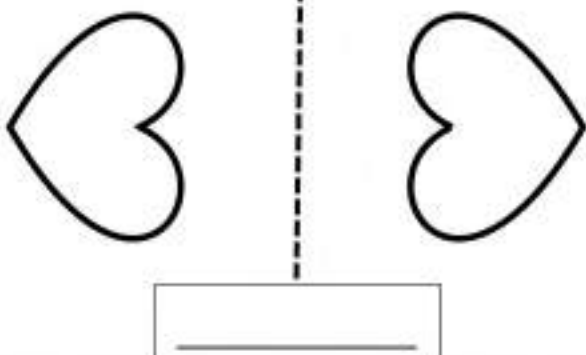
5)



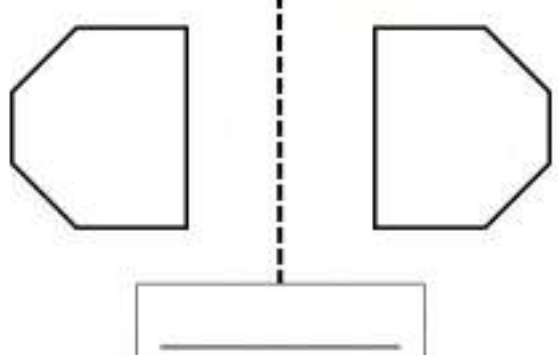
6)



7)



8)



PREVIEW

Drawing Reflections

Questions

Draw the shape across the reflection line

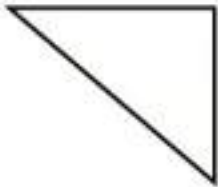
1)



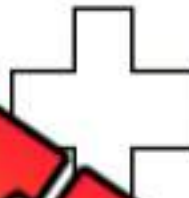
2)



3)



4)



5)



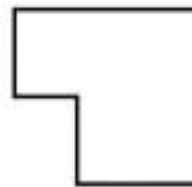
6)



7)



8)

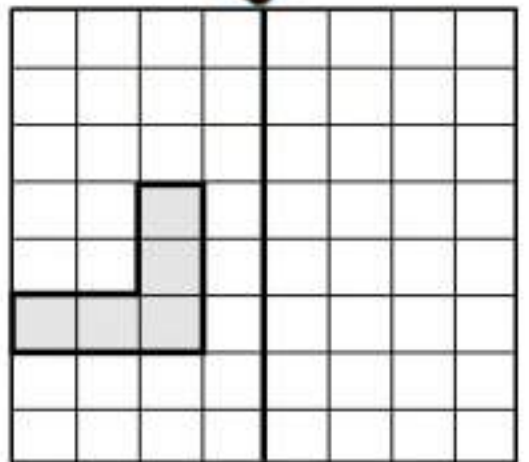
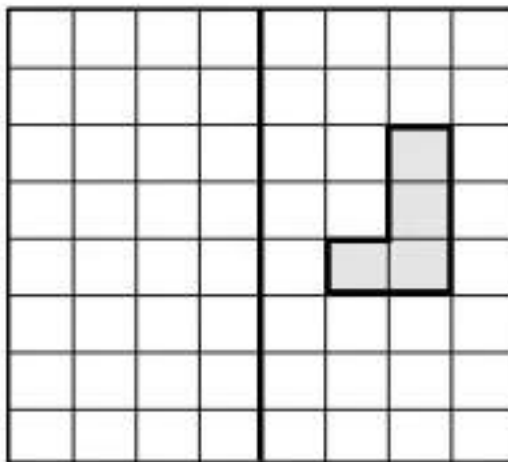
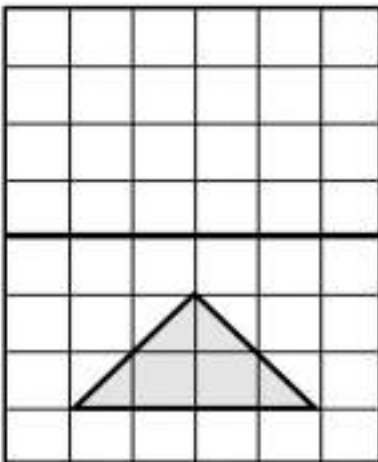
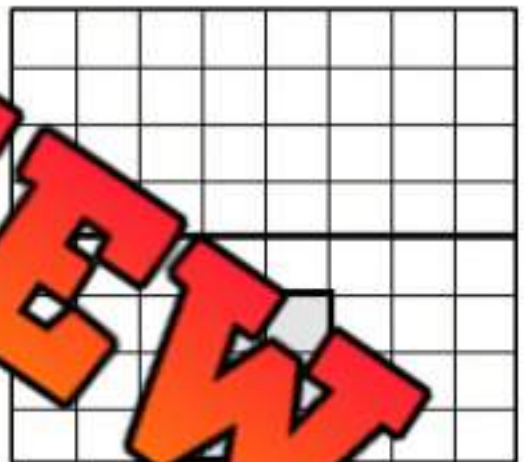
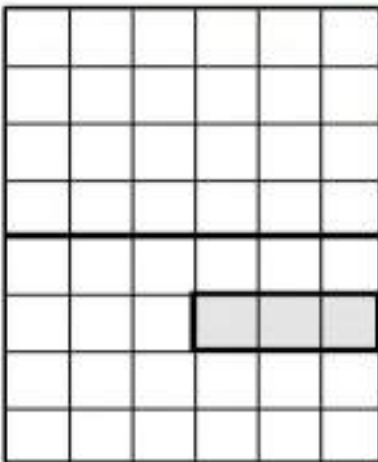
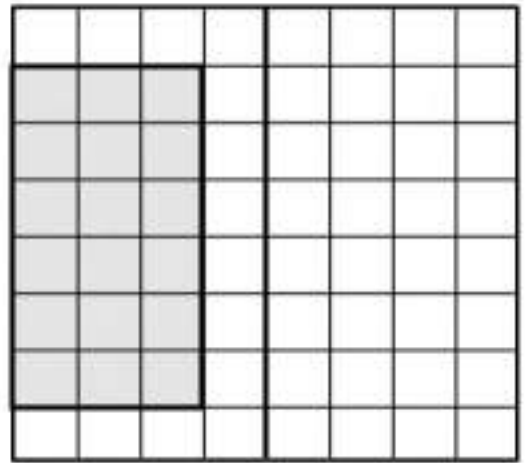
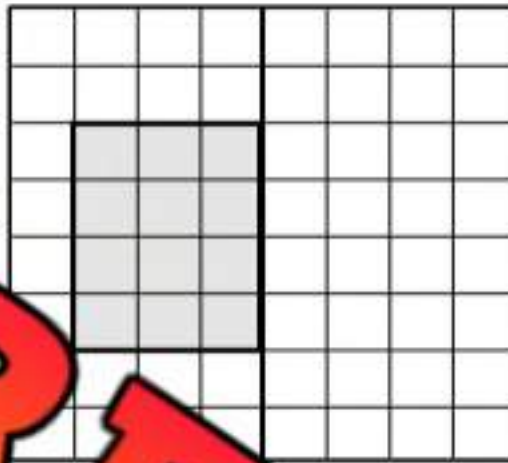
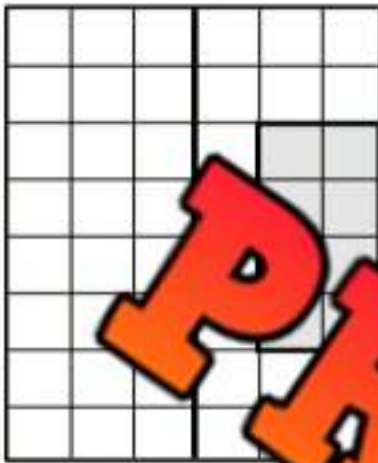


PREVIEW

Drawing Reflections

Instructions

Reflect the shapes across the mirror line




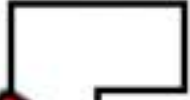
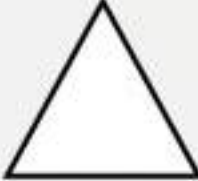


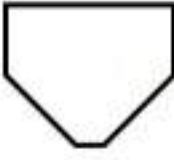

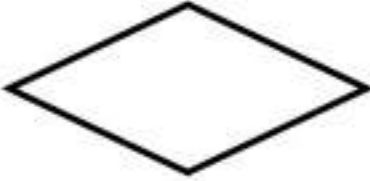

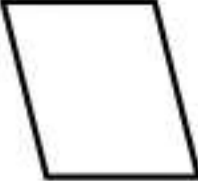


PREVIEW

Rotations

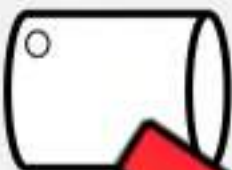
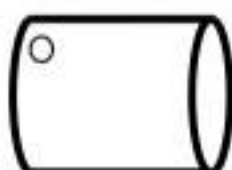




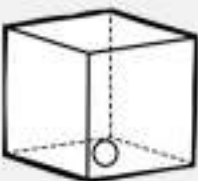
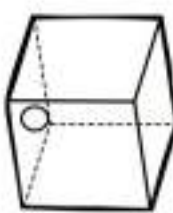
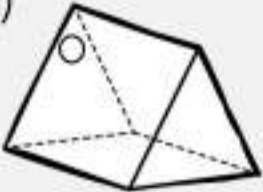
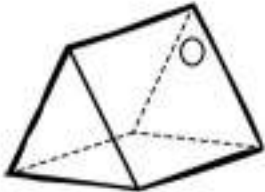
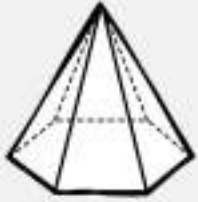
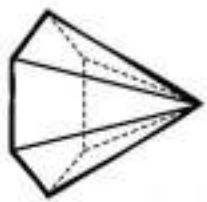
Questions

Has the shape been rotated? Yes or No?

1)			Yes	No
2)			Yes	No
3)			Yes	No
4)			Yes	No
5)			Yes	No
6)			Yes	No

Rotations – 3D Objects**Questions**

Has the object been rotated? Yes or No?

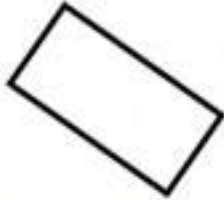
1)			Yes	No
2)			Yes	No
3)			Yes	No
4)			Yes	No
5)			Yes	No
6)			Yes	No

Rotations

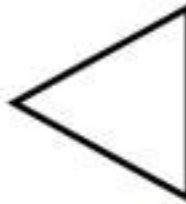
Questions

Colour the objects that are rotations of the first object

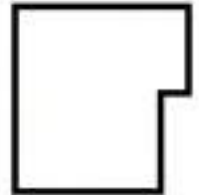
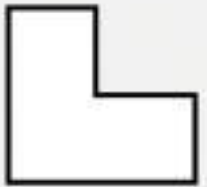
1)



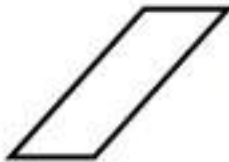
2)



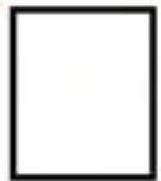
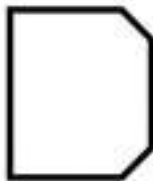
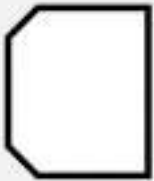
3)



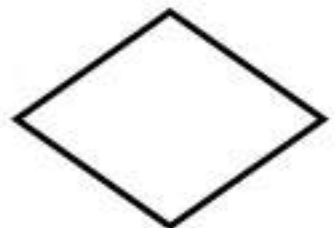
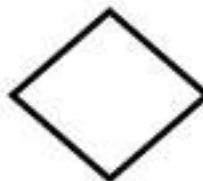
4)



5)



6)



Transformation

Instructions

Is the transformation a translation, reflection or rotation?

1)



Translation Reflection Rotation

2)



Translation Reflection Rotation

3)



Translation Reflection Rotation

4)



Translation Reflection Rotation

5)



Translation Reflection Rotation

6)



Translation Reflection Rotation

7)



Translation Reflection Rotation

8)



Translation Reflection Rotation

Clockwise and Counterclockwise Rotations

Rotations can either be clockwise or counterclockwise.

A **clockwise** rotation moves the same way the minute, second, and hour hands move on a clock.

A **counterclockwise** rotation moves the opposite way of a clockwise turn.

We can rotate things a lot or a little. Check out the three turns below.

360°
rotation



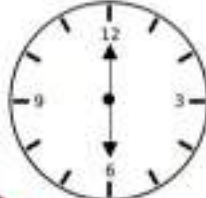
Clockwise
90° rotation

180°
rotation

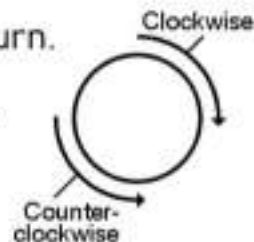


Counterclockwise
90° rotation

90°
rotation



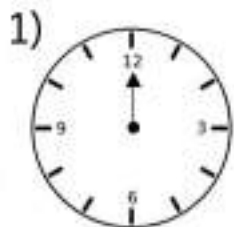
Clockwise/Counterclockwise
90° rotation



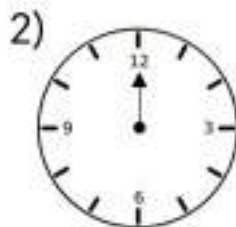
Clockwise/Counterclockwise
360° rotation

Part 1

Draw how the arrow turned on the clock



Clockwise
90° rotation



Counterclockwise
360° rotation



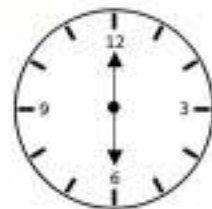
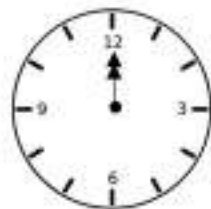
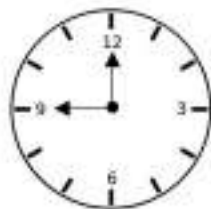
Counterclockwise
90° rotation



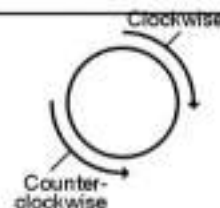
Clockwise
180° rotation

Part 2

Describe how the arrow turned on the clock



Clockwise and Counterclockwise Rotations

360°
rotation180°
rotation90°
rotation

Instruction

Draw the smiley face after it has been rotated

1)



Clockwise 90° rotation

2)



Counterclockwise 90° rotation

3)



Clockwise 180° rotation

4)



Counterclockwise 180° rotation

5)



Clockwise 360° rotation

6)



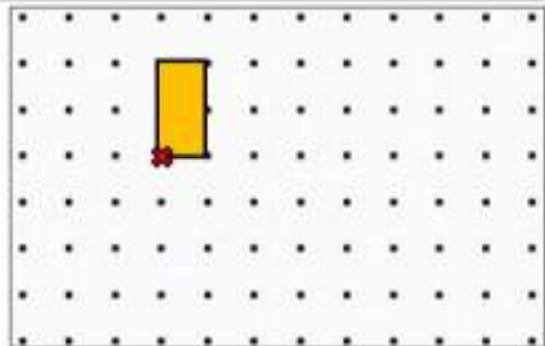
Counterclockwise 360° rotation

Drawing Rotations**Questions**

Rotate the shapes around the point marked ✖



1) 90° clockwise rotation



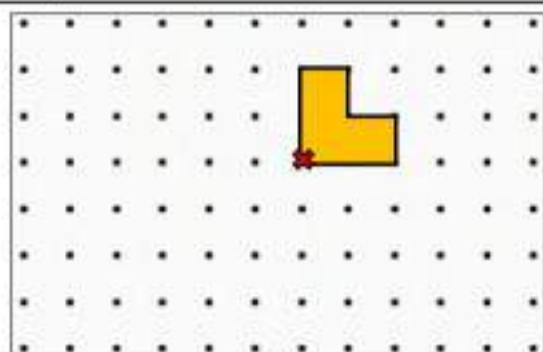
2) 180° clockwise rotation



3) 90° counter-clockwise rotation



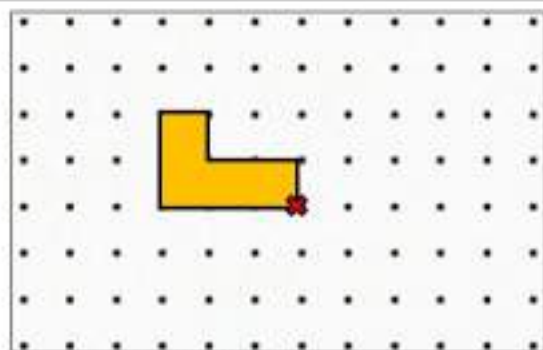
4) 360° clockwise rotation



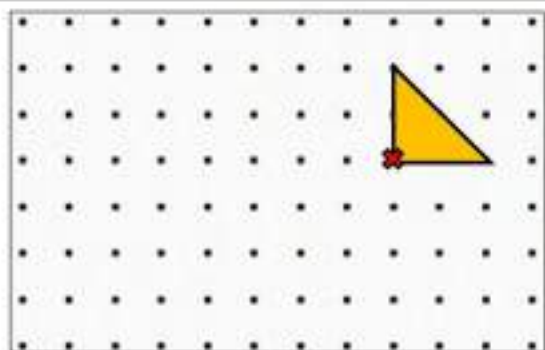
5) 90° counter-clockwise rotation



6) 180° counter-clockwise rotation



7) 90° clockwise rotation



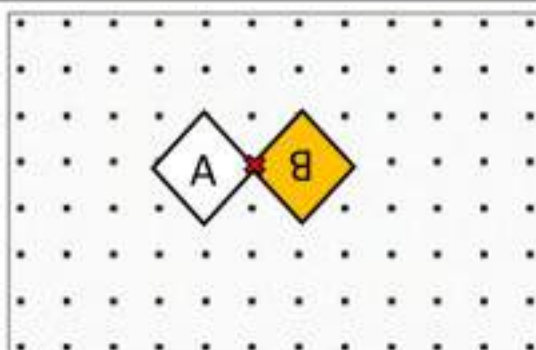
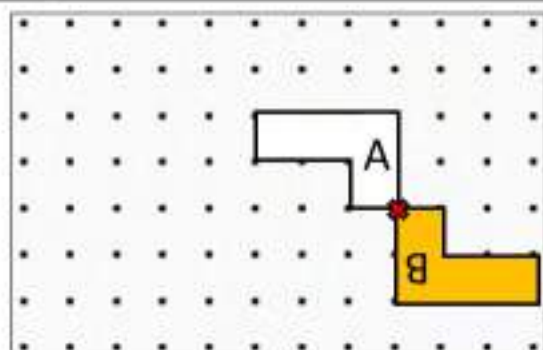
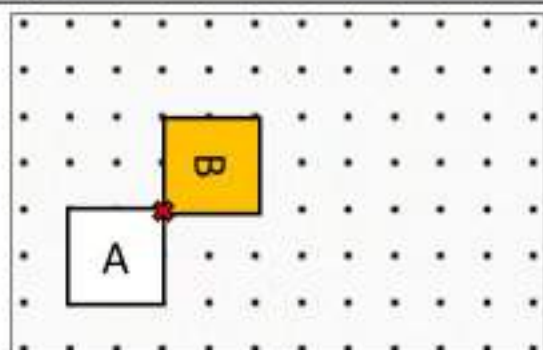
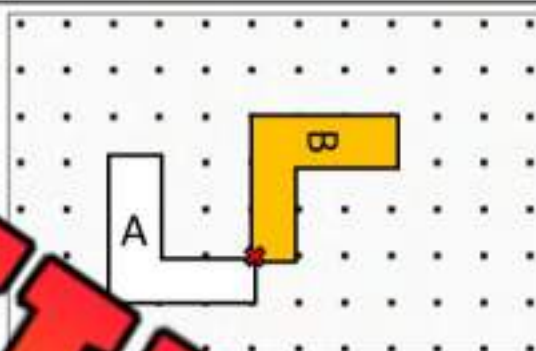
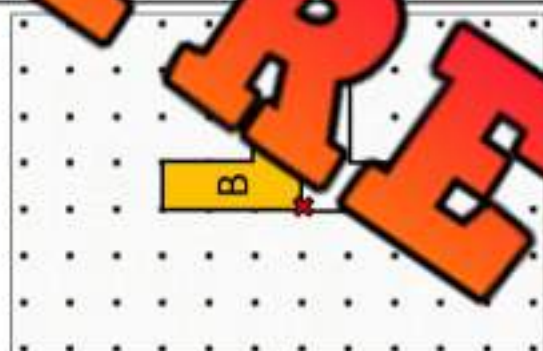
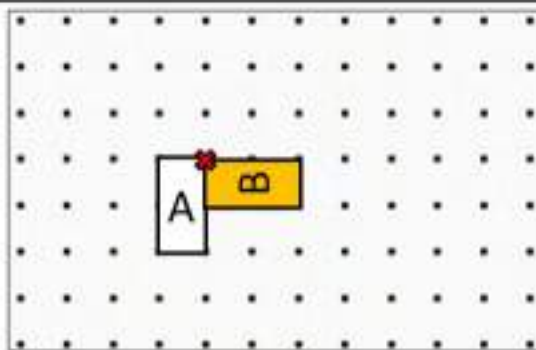
8) 180° counter-clockwise rotation

PREVIEW

Describing Rotations

Questions






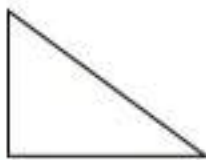
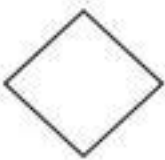
Describe the rotations. Shape A is the original shape.



Geometry Test





Part 1

How many sides does the shape have? What is the name of the shape?

1.		2.		3.		4.	
Sides							
Name							
5.		7.		8.			
Sides							
Name							


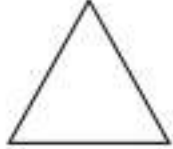


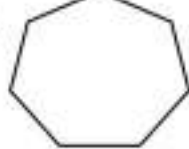
Part 2

Is the shape a polygon? Write yes or no in the space.

1.		2.		3.		4.	

Part 3

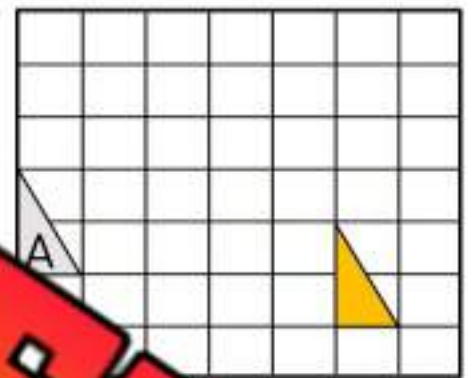
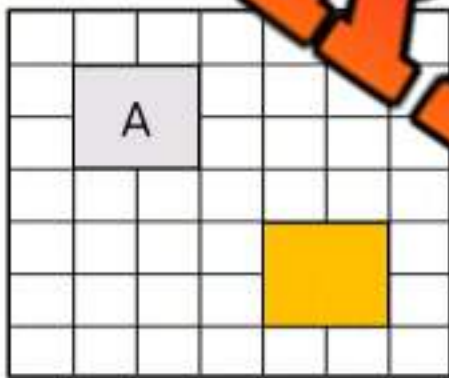
Circle the vertices and write how many vertices the shape has

1.		2.		3.		4.		5.	

Part 4 Label the angles in comparison to a right angle - larger, smaller, right angle

1) 	2) 	3) 	4)

Part 5 Describe the transformations below using arrows. Shape A is the original object



Part 6 Draw a rotation of the first image

1) 	
2) 	

3) 	
4) 	

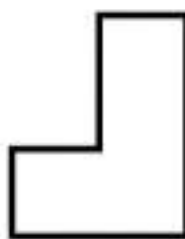
Part 7

Draw the shape across the reflection line

1)



2)



Part 8

Which transformation a translation, reflection or rotation?

1)

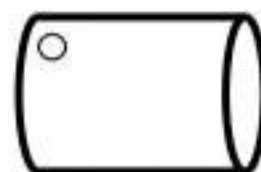


Translation

Reflection

Rotation

2)

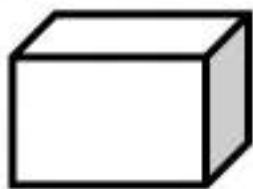


Translation

Reflection

Rotation

3)



Translation

Reflection

Rotation

4)

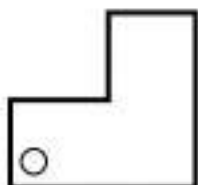
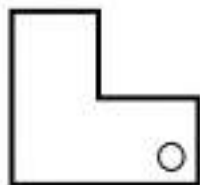


Translation

Reflection

Rotation

5)

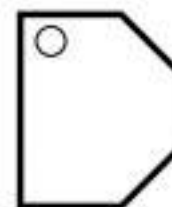


Translation

Reflection

Rotation

6)



Translation

Reflection

Rotation



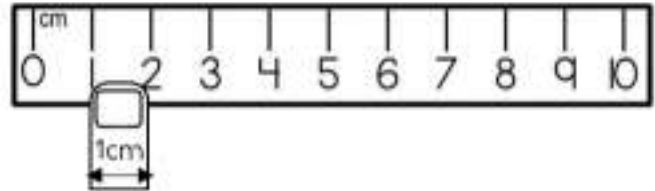
Grade 3 Measurement



	Curriculum Expectations	Pages
M.1	<p><u>Students determine length using standard units.</u></p> <ul style="list-style-type: none">▪ Relate millimetres, centimetres, and metres.▪ Relate inches to feet and yards. Justify the choice of millimetres, centimetres, or metres to measure various lengths.▪ Measure lengths of straight lines and curves, with millimetres, centimetres, or metres.▪ Recognize length expressed in metric or imperial units.▪ Approximate a measurement in inches, feet, or yards using centimetres or metres.▪ Determine the perimeter of polygons.▪ Determine the length of an unknown side given the perimeter of a polygon▪ Identify referents for a centimetre and a metre.▪ Estimate length by comparing to a benchmark.▪ Estimate length by visualizing the iteration of a referent for a centimetre or metre.	68 - 120
M.2	<p><u>Students interpret angles.</u></p> <ul style="list-style-type: none">▪ Recognize various angles in surroundings.▪ Recognize situations in which an angle can be perceived as motion.▪ Compare two angles directly by superimposing.▪ Compare two angles indirectly by superimposing a third angle.▪ Estimate which of two angles is greater. Identify referents for 90°.▪ Identify 90° angles in the environment using a referent.	121 - 131
TQ	Tests and Quizzes	132-134

Estimating Lengths – Finger Benchmark

We can estimate the length of something by using our fingertip. Your fingertip is approximately 1 cm wide.



Part 1 Measure the objects below using your fingertip

1)



Approximately _____

2)



Approximately _____ cm

3)



Approximately _____ cm

4)



Approximately _____ cm

5)



Approximately _____ cm

6)



Approximately _____

Part 2 Find objects in your class that you can measure

1) The pencil is
approximately _____ cm

2) The _____ is
approximately _____ cm

3) The _____ is
approximately _____ cm

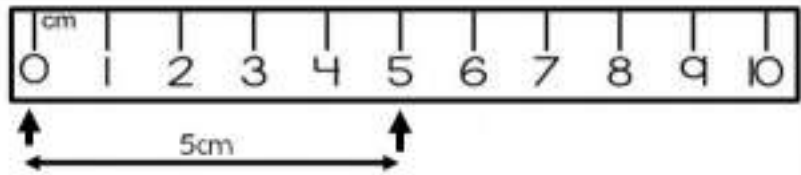
4) The _____ is
approximately _____ cm

5) The _____ is
approximately _____ cm

6) The _____ is
approximately _____ cm

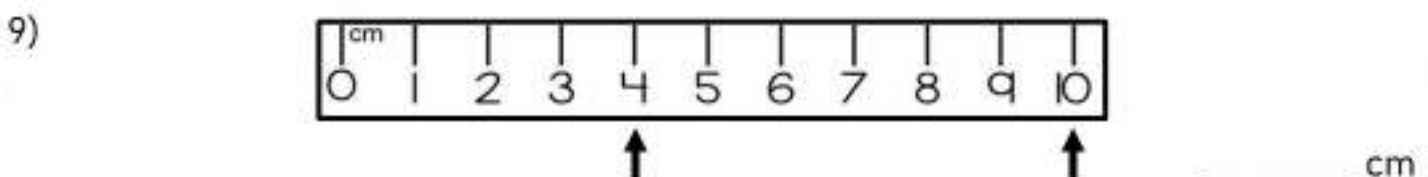
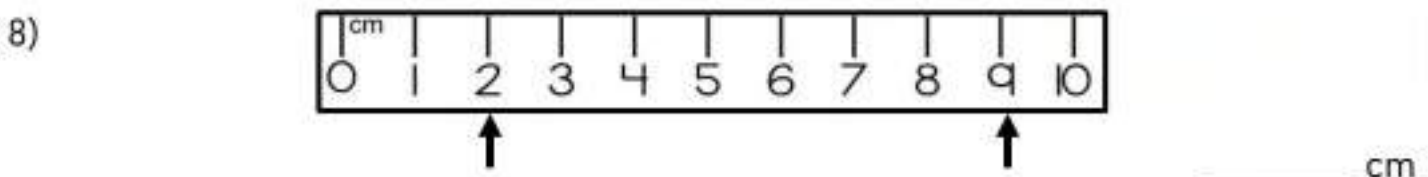
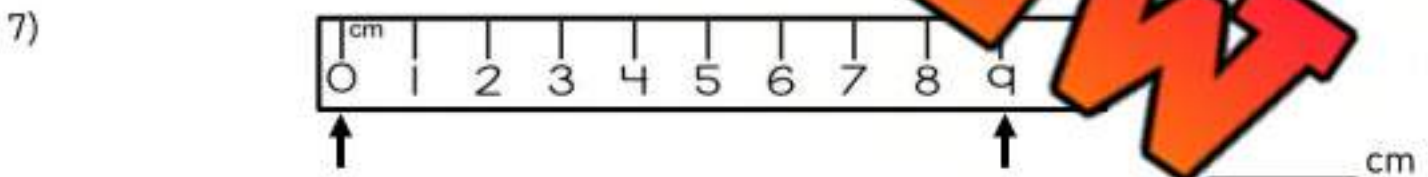
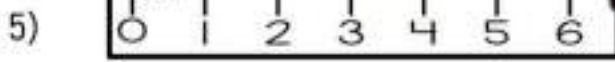
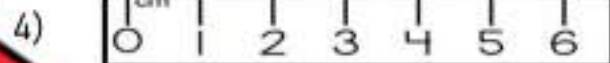
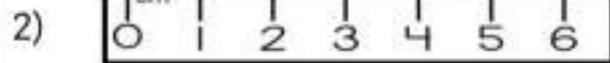
Measuring in Centimeters

We can accurately measure the length of something by using a ruler.



Questions

Read the rulers below to find the distance between the arrows



Measuring in Centimeters

Questions

Use a ruler to measure the lines below



1)



_____ cm _____ mm

2)



_____ cm _____ mm

3)



_____ cm _____ mm

4)



_____ cm _____ mm

5)



_____ cm _____ mm

6)



_____ cm _____ mm

7)



_____ cm _____ mm

8)



_____ cm _____ mm

9)



_____ cm _____ mm

10)



_____ cm _____ mm

11)



_____ cm _____ mm

12)



_____ cm _____ mm

PREVIEW

Drawing Lengths Using a Ruler

Questions

Draw lines that are the lengths below



1)

5 cm

2)

6 cm

3)

4)

9 cm

5)

4 cm

7 cm

7)

1 cm

8)

8 cm

9)

2 cm

10)

10 cm

11)

14 cm

12)

17 cm

PREVIEW

Measuring Height – Lollipops

Questions

Measure the height of the lollipop sticks



Estimating Length in CM

Questions

Circle which length fits the description

1) A pencil

- a) 5cm
- b) 15cm
- c) 50cm
- d) 100cm



2) A computer

- a) 5cm
- b) 10cm
- c) 40cm
- d) 100cm



3) A pencil

- a) 50cm
- b) 100cm
- c) 500cm
- d) 900cm



4) A cup

- a) 3cm
- b) 10cm
- c) 50cm
- d) 100cm



5) A bottle

- a) 3cm
- b) 30cm
- c) 100cm
- d) 300cm



6) A remote control

- a) 5cm
- b) 10cm
- c) 100cm
- d) 500cm



7) An apple

- a) 1cm
- b) 30cm
- c) 10cm
- d) 100cm



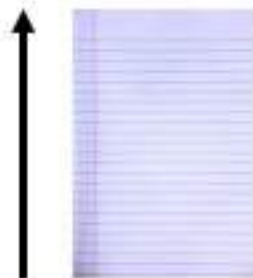
8) A paper clip

- a) 5cm
- b) 50cm
- c) 100cm
- d) 200cm



9) Piece of paper

- a) 5cm
- b) 15cm
- c) 50cm
- d) 100cm



10) A shoe

- a) 5cm
- b) 15cm
- c) 50cm
- d) 200cm



Estimating Length in Metres

Questions

Circle which length fits the description

1) A pool

- a) 1m
- b) 2m
- c) 10m
- d) 100m



2) A basketball player

- a) 1m
- b) 2m
- c) 10m
- d) 100m



3) A car

- a) 1m
- b) 2m
- c) 5m
- d) 100m



4) A school

- a) 1m
- b) 10m
- c) 100m
- d) 500m



5) A school bus

- a) 1m
- b) 2m
- c) 10m
- d) 100m



6) A house

- a) 1m
- b) 10m
- c) 100m
- d) 500m



7) A soccer field

- a) 5m
- b) 10m
- c) 20m
- d) 100m



8) A basketball net

- a) 1m
- b) 4m
- c) 50m
- d) 100m



9) A hot tub

- a) 2m
- b) 10m
- c) 50m
- d) 100m



10) A stop sign

- a) 1m
- b) 2m
- c) 10m
- d) 100m



Measuring Rectangles – Side Lengths**Questions**

Label the side lengths in centimetres (cm)

1)



2)



3)



4)



5)

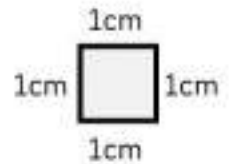


6)

**PREVIEW**

Measuring Square Side Lengths

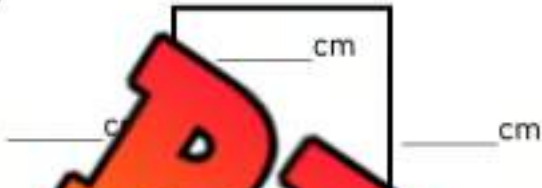
A square has 4 sides that are all the same length. We can find out if a shape is a square by measuring the side lengths.



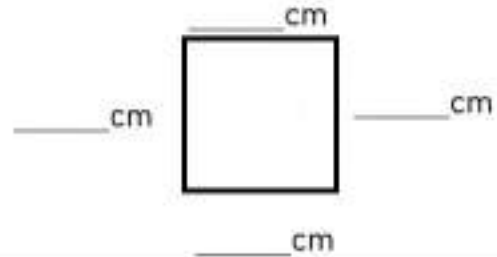
Part 1

Use a ruler to measure the squares below

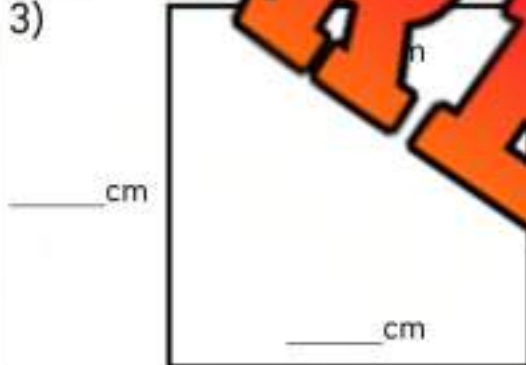
1)



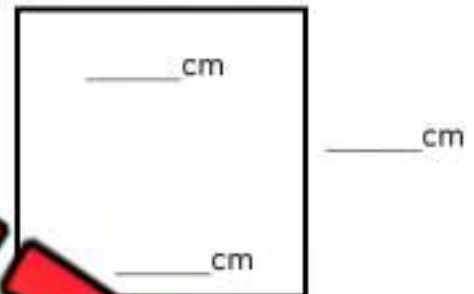
2)



3)



4)



Part 2

Are the shapes squares or rectangles?

1)



Square Rectangle

2)



Square Rectangle

3)



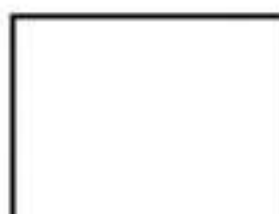
Square Rectangle

4)



Square Rectangle

5)






Square Rectangle

6)













Square Rectangle




Metric System Units – mm, cm, m

Millimetre (mm)	Centimetre (cm)	Metre (m)
Used to measure short distances	Used to measure short to medium distances	Used to measure medium to long distances
		

Questions: Which unit of measure would you use to measure the following distances?

1) The length of a piece of paper		
2) The length of your arm		
3) The length of your eraser		
4) The length of your classroom		
5) The width of a worm		
6) The distance of a 10 second race		
7) The length of your shoe		
8) The width your fingernail		
9) The height of the classroom door		
10) The length of your school		

Metric System Units - mm, cm, m

Millimetre (mm)	Centimetre (cm)	Metre (m)
$10\text{mm} = 1\text{cm}$ $1000\text{mm} = 1\text{m}$ 	$1\text{cm} = 10\text{mm}$ $100\text{cm} = 1\text{m}$ 	$1\text{m} = 100\text{cm}$ $1\text{m} = 1000\text{mm}$ 

Part 1

Complete the tables below

	cm
10	
20	
40	
50	
	6
	7
	8
90	
100	

cm	m
100	1
	2
300	3
400	
	5
600	
	7
1000	



PREVIEW

Part 2

Convert the units of measurement below

1) 1m _____ cm

5) 5m _____ cm

9) 500cm _____ m

2) 20mm _____ cm

6) 50mm _____ cm

10) 500mm _____ cm

3) 2cm _____ mm

7) 100mm _____ cm

11) 8m _____ cm

4) 50cm _____ mm

8) 30cm _____ mm

12) 300cm _____ m

Which is Longer?

Part 1

Which distance is farther? Circle the longest distance.

1)	10m	200cm	10mm	2m
2)	32cm	380mm	1m	1000m
3)	50m	535cm	5m	1m
4)	1m	1m	5000mm	156cm
5)	712cm	2000mm	4m	

Part 2

Read the problem and write the answer below.

- Nick and Ryan both competed in a jump at track meet. Nick jumped 3m and Ryan jumped 329cm. Who jumped further?
- Max and Rudy are arguing over whose pencil is longer. Max's pencil is 10cm long and Rudy's is 95mm long. Whose pencil is longer?
- Fred and Norm both walk to school. Fred walks 5400cm and Norm walks 53m. Who walks further to school?



Exit Cards

Cut Out

Cut out the exit cards below and have students complete them at the end of class

Name: _____

a) Convert the unit of measurement below

- _____
- $900\text{cm} = \underline{\hspace{2cm}}\text{m}$

b) Paul is comparing two desks; one is 120cm long and the other is 1.1 meters long. Which desk is longer?

Name: _____

a) Convert the unit of measurement below

- $7\text{m} = \underline{\hspace{2cm}}\text{cm}$
- $900\text{cm} = \underline{\hspace{2cm}}\text{m}$

b) Paul is comparing two desks; one is 120cm long and the other is 1.1 meters long. Which desk is longer?

Name: _____

a) Convert the unit of measurement below

- $7\text{m} = \underline{\hspace{2cm}}\text{cm}$
- $900\text{cm} = \underline{\hspace{2cm}}\text{m}$

b) Paul is comparing two desks; one is 120cm long and the other is 1.1 meters long. Which desk is longer?

Name: _____

a) Convert the unit of measurement below

- $7\text{m} = \underline{\hspace{2cm}}\text{cm}$
- $900\text{cm} = \underline{\hspace{2cm}}\text{m}$

b) Paul is comparing two desks; one is 120cm long and the other is 1.1 meters long. Which desk is longer?

Ordering Measurements

Part 1

Order the measurements from shortest to longest

Measurements	Order (Shortest to Longest)			
1) 7000 mm, 6 m, 500 cm, 4 m	4 m	500 cm	6 m	7000 mm
2) 2 m, 7000 mm, 5 m				
3) 800 mm, 50 m, 2 m				
4) 3000 mm, 2000 mm, 50 m				
5) 150 cm, 90 m, 1200 mm, 11 cm				

Part 2

Order the measurements from shortest to longest

Measurements	Order (Shortest to Longest)			
1) 5000 mm, 9000 m, 700 cm, 8 m				
2) 2 m, 550 cm, 1500 mm, 5 m				
3) 8000 mm, 5 m, 450 cm, 525 cm				
4) 3 mm, 4100 m, 1 cm, 1 m				
5) 120 cm, 1 m, 12000 mm, 2000 mm				

Measurement Word Problems**Questions**

Answer the questions below

	Word Problems
1	Two desks were measured in a classroom. One desk is 75 cm tall, and the other is 900 mm tall. Which desk is taller, and by how much?
2	A store sells three different ropes: one rope is 3 metres, another is 2 500 millimetres, and the last is 210 centimetres. Order the ropes from longest to shortest.
3	A sunflower grew to 2 metres, while a rose bush reached 70 centimetres, and a tulip was 900 mm tall. Order the plants from tallest to shortest.
4	A library has bookshelves of different heights. One bookshelf is 2 metres, another is 210 centimetres, and the third is 2 500 millimetres. Order the bookshelves from tallest to shortest.

Estimating Distance

Questions

Circle which distance is the largest

1) Length of a pencil

- a) 30cm
- b) 10mm
- c) 10cm



2) Length of a soccer field

- a) 100m
- b) 500m
- c) 500cm



3) Distance of a 200m race

- a) 100 metres
- b) 50mm
- c) 2000m

4) Length of a gym

- a) 15m
- b) 3m
- c) 300cm
- d) 3000mm



5) Width of a computer monitor

- a) 2m
- b) 40cm
- c) 20mm



6) Length of your shoe

- a) 15m
- b) 15cm
- c) 2m



7) Height of a desk

- a) 2m
- b) 90cm
- c) 200mm



8) Height of an NBA player (person)

- a) 2m
- b) 100cm
- c) 200mm



9) Length of a bus

- a) 13m
- b) 200cm
- c) 2000mm



10) Width of an eraser on the end of a pencil

- a) 2m
- b) 10cm
- c) 10mm



Measure Curved Lengths

Questions

Use a string to measure the curved lengths below. Use cm or mm

1) Length = _____

2) Length = _____



3) Length = _____

Length = _____



5) Length = _____

6) Length = _____



PREVIEW

Imperial System Units – in, ft, yd

Inch (in.)	Foot (ft.)	Yard (yd.)
12 in = 1 ft	3 ft = 1 yd	1 yd = 36 in
24 in = 2 ft	6 ft = 2 yd	2 yd = 72 in
48 in = 4 ft	9 ft = 3 yd	3 yd = 108 in

Part 1

Fill in the tables below

	ft
12	1
48	
72	
84	
	8
120	10

ft	yd
3	1
6	
	3
	4
	7
30	

Part 2

Convert the units of measurement below

1) 1 ft = _____ in

5) 48 in = _____ ft

9) 60ft = _____ yd

2) 2 ft = _____ in

6) 4 yd = _____ ft

10) 216 in = _____ yd

3) 3 yd = _____ in

7) 72 in = _____ ft

11) 144 in = _____ yd

4) 6 yd = _____ in

8) 36 in = _____ ft

12) 120 ft = _____ yd

Which is Longer?




Part 1

Which distance is farther? Circle the longest distance.

1)	15ft	180in	14yd	16ft
2)	240in	22ft	8yd	10ft
3)	9yd	3ft	48in	5ft
4)	350ft	420in	105ft	
5)	7ft	5yd	11ft	

Part 2

Read the problem and choose the answer below.

1. A cat jumped over a fence that measured 7 feet tall, while a dog jumped over a fence that measured 81 inches. Which animal jumped over a higher fence?

2. Rachel built a bookshelf measuring 3 yards tall, while Liam built a bookshelf measuring 10 feet tall. Whose bookshelf is taller?

3. James and Ella both ran different lengths in their school relay race. James ran 100 yards, while Ella ran 250 feet. Who covered more distance in the relay?


Exit Cards

Cut Out

Cut out the exit cards below and have students complete them at the end of class

Name: _____

1) Convert the units of measurement below.

- a) _____ ft
b) _____ yd
c) 3yd = _____ in

2) Answer the questions below

A garden hose is 25 yards long. How long is it in feet?

Name: _____

1) Convert the units of measurement below.

- a) 48in = _____ ft
b) 9ft = _____ yd
c) 3yd = _____ in

2) Answer the questions below

A garden hose is 25 yards long. How long is it in feet?

Name: _____

1) Convert the units of measurement below.

- a) 48in = _____ ft
b) 9ft = _____ yd
c) 3yd = _____ in

2) Answer the questions below

A garden hose is 25 yards long. How long is it in feet?

Name: _____

1) Convert the units of measurement below.

- a) 48in = _____ ft
b) 9ft = _____ yd
c) 3yd = _____ in

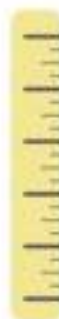
2) Answer the questions below

A garden hose is 25 yards long. How long is it in feet?

Imperial System and Metric System

The imperial system and metric system do not have perfect conversions because they are two different systems. When we convert a metric unit to an imperial unit, the conversion will be approximate, meaning not exact.

Inches	Feet	Yards
○ Approximately 2 ½ cm in one inch	○ Approximately 30 cm in one foot	○ Approximately 1 metre in 1 yard



Part 1 Write in the boxes below



Inches	Centimetres	Yards	Metres
1		1	
2	10	2	
	7.5		3
4	12	4	
	12.5		
	15		6
	17.5		
8	240		
	22.5		9
	25	10	
	10		

Part 2 Which distance is the furthest? Circle the longest distance.



1)	5 inches	10 cm	1 m
2)	7 y	5 m	90 cm
3)	150 cm	1 y	10 in
4)	10 in	1 ft	1 m

Estimating the Distance

Use your knowledge of the imperial system to estimate the distances below. Use the referents below to help.

Example

- ✓ My paper is 11 inches long
- ✓ The average height of a person is between 5 and 6 feet
- ✓ The length of a soccer field is 100 yards



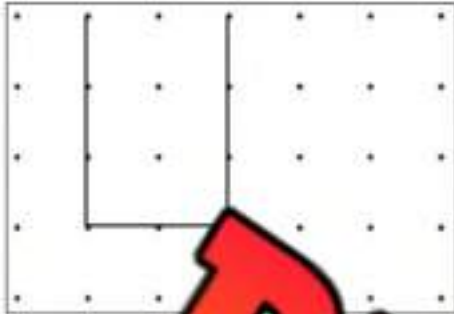
Question Answer the questions below by estimating the distances

1) How many _____ are you _____?	
2) How many yards wide is your school _____?	
3) How many inches long is your hair _____?	
4) How long is a bus?	
5) How tall is your teacher?	
6) How long is your foot?	
7) How far is the walk to the washroom?	
8) How wide is your classroom?	
9) How tall is your desk?	
10) How long is your pencil?	

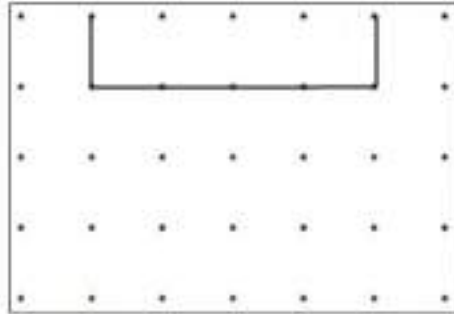
Finding the Perimeter of Irregular Shapes

Part 1

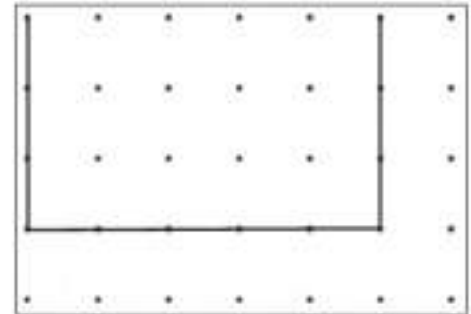
Find the perimeter of the rectangles below



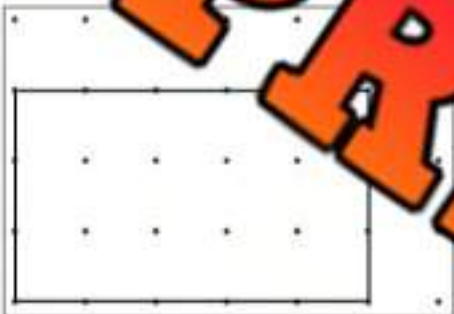
1) Perimeter = _____



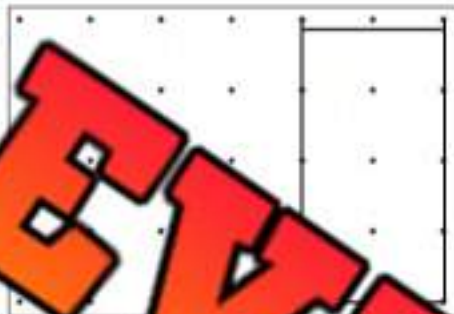
2) Perimeter = _____



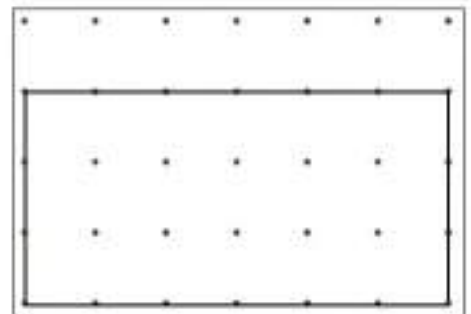
3) Perimeter = _____



4) Perimeter = _____



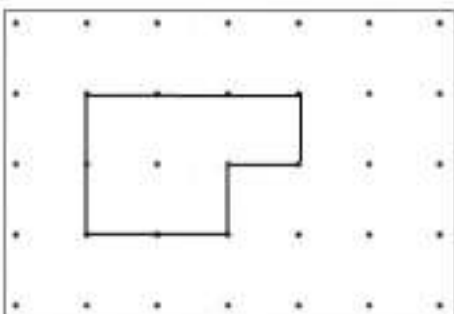
5) Perimeter = _____



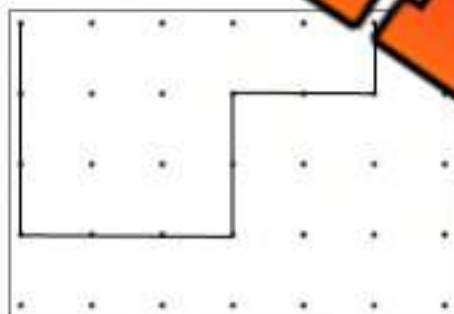
6) Perimeter = _____

Part 2

Find the perimeter of the polygons below



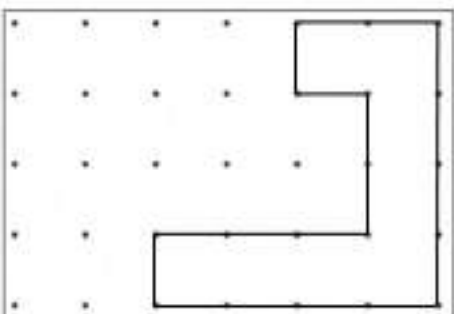
1) Perimeter = _____



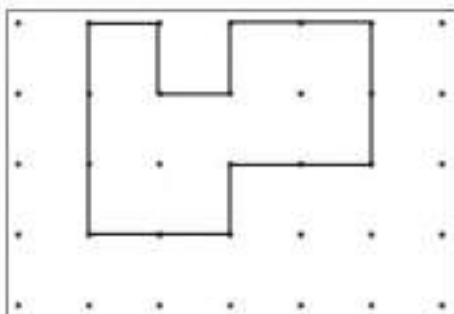
2) Perimeter = _____



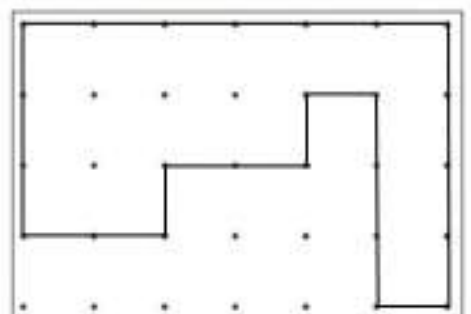
3) Perimeter = _____



4) Perimeter = _____



5) Perimeter = _____



6) Perimeter = _____

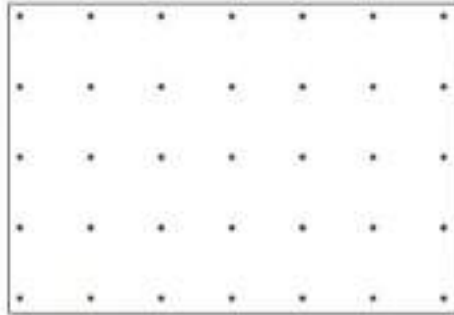
Drawing Shapes Using Perimeter

Part 1

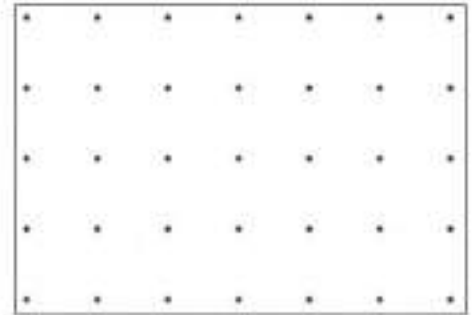
Draw a square with the perimeter that is given to you



1) Perimeter = 2



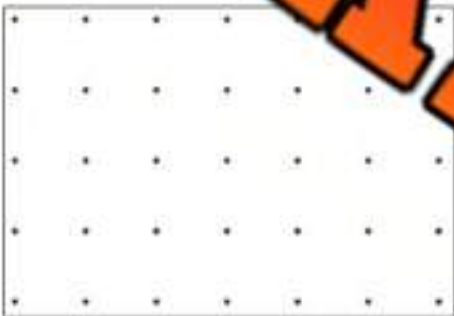
2) Perimeter = 4



3) Perimeter = 12

Part 2

Draw a rectangle with the perimeter that is given to you



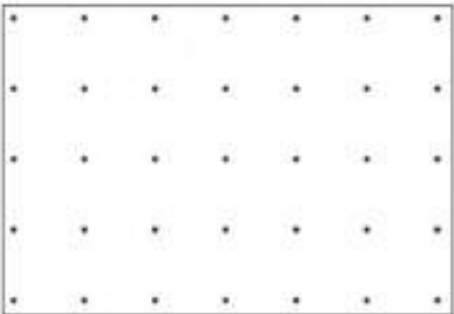
4) Perimeter = 6



5) Perimeter = 8



6) Perimeter = 16



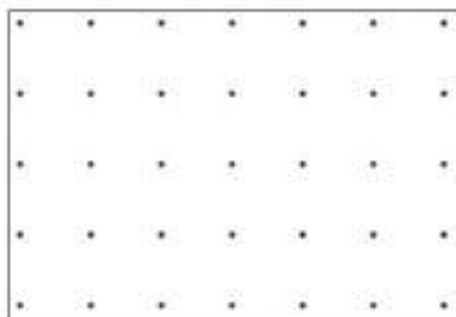
7) Perimeter = 8



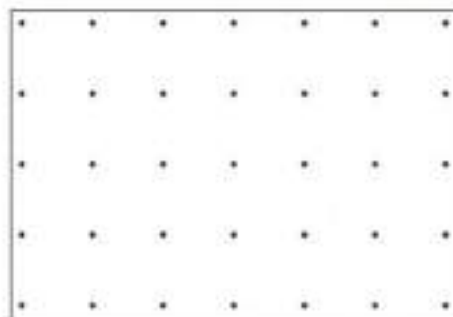
8) Perimeter = 14



9) Perimeter = 18



10) Perimeter = 20



11) Perimeter = 12

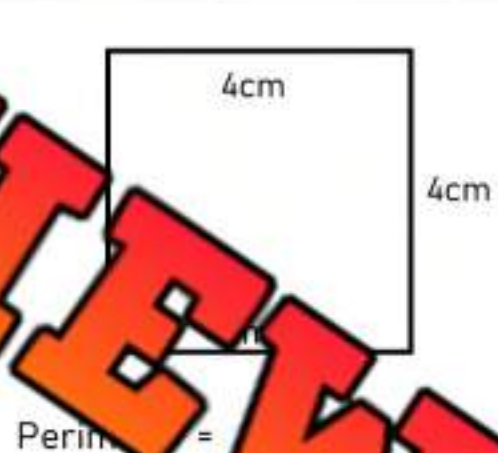
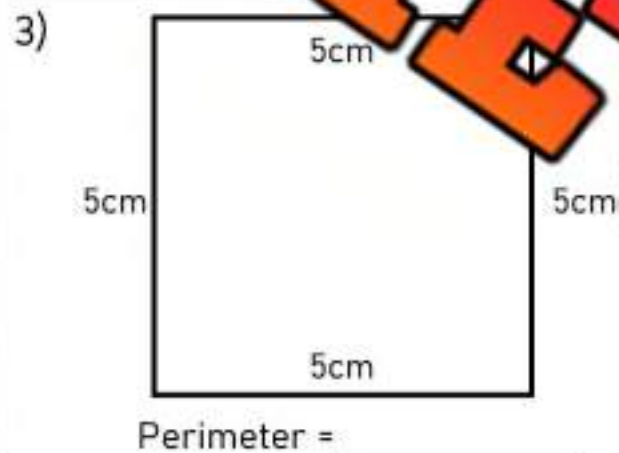
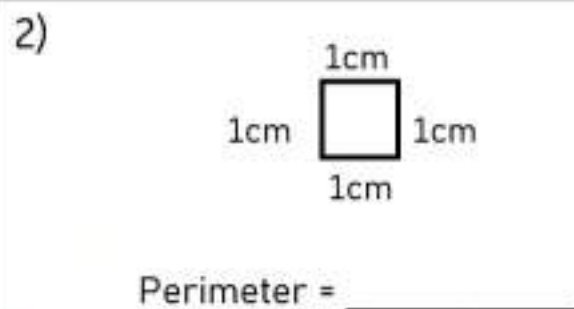
Finding the Perimeter of Shapes

The **perimeter** is the distance around a shape. We can find the perimeter by adding up all the side lengths.

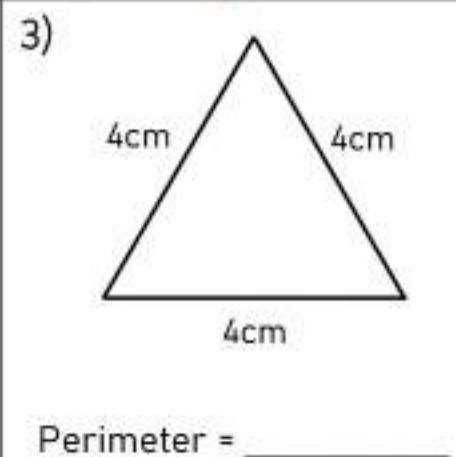
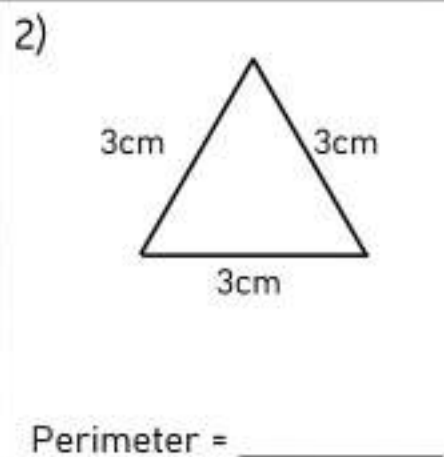
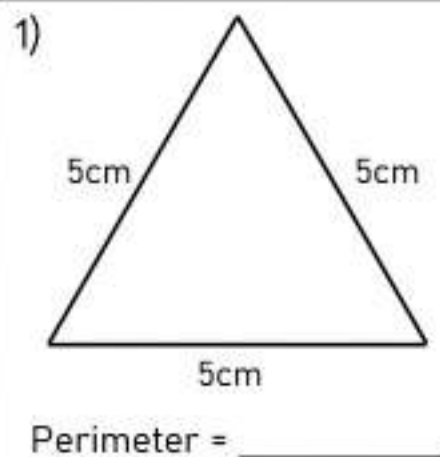
Example: $2 + 2 + 2 + 2 = 8\text{cm}$



Part 1 Find the perimeter of the squares below



Part 2 Find the perimeter of the triangles below



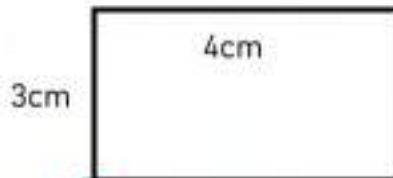
Calculating Perimeter

Questions

Find the perimeter of the shapes below

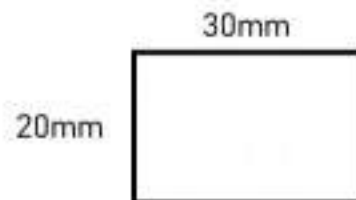
*** not to scale

1)



Perimeter = _____ cm

2)



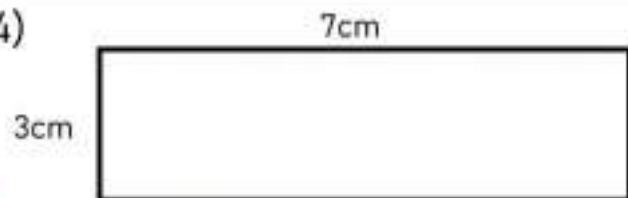
Perimeter = _____ mm

3)



Perimeter = _____

4)



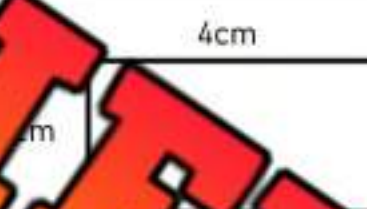
Perimeter = _____ cm

5)



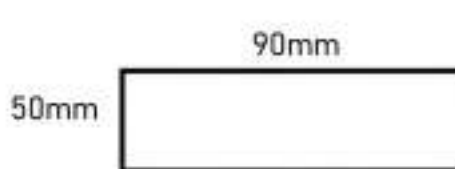
Perimeter = _____ mm

6)



Perimeter = _____ cm

7)



Perimeter = _____ mm

8)



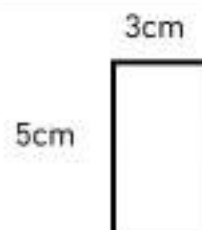
Perimeter = _____ cm

9)



Perimeter = _____ mm

10)

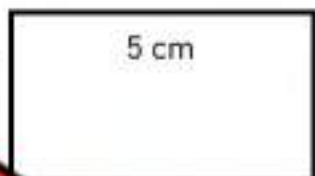


Perimeter = _____ cm

Calculating Perimeter of Unknown Side**Questions**

Use the perimeter and given lengths to find the unknown side

1)



Perimeter = 16 cm

2)



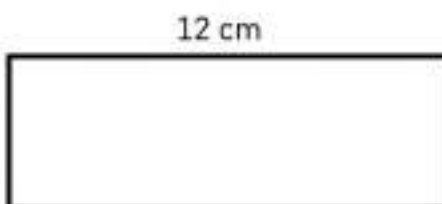
Perimeter = 12 cm

3)



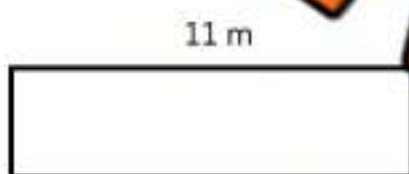
Perimeter = 22 cm

4)



Perimeter = 32 cm

5)



Perimeter = 26 m

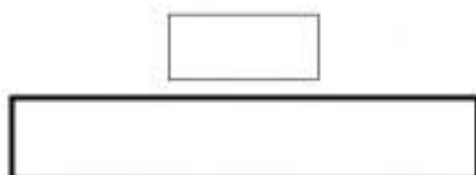
6)



Perimeter = 30 m

7)

1 m



Perimeter = 22 m

8)

3 cm



Perimeter = 12 cm

9)



Perimeter = 40 m

10)



Perimeter = 50 m

Measurement Word Problems**Questions**

Answer the questions below

	Word Problems
1	A swimming pool has a perimeter of 18 metres. One side of the pool is 5 metres long. What is the missing length?
2	A notebook cover has a perimeter of 86 cm. One side of the cover is 21 cm. What is the missing side length?
3	A classroom whiteboard has a perimeter of 300 cm. The width of the whiteboard is 120 cm. What is the length of the whiteboard?
4	A rectangular picture frame has a perimeter of 1 000 mm. One side of the frame is 200 mm. Find the missing length of the frame.
5	A window panel has a perimeter of 180 cm. One side measures 45 cm. Find the missing length of the window panel.

Drawing Shapes Using Perimeter

Questions

Draw a shape (square, rectangle, or triangle) using the perimeter given

1)

Perimeter = 12 cm

2)

Perimeter = 12 cm

3)

Perimeter = 16 cm

4)

Perimeter = 20 cm

5)

Perimeter = 10 cm

6)

Perimeter = 6 cm

7)

Perimeter = 22 cm

8)

Perimeter = 18 cm

PREVIEW

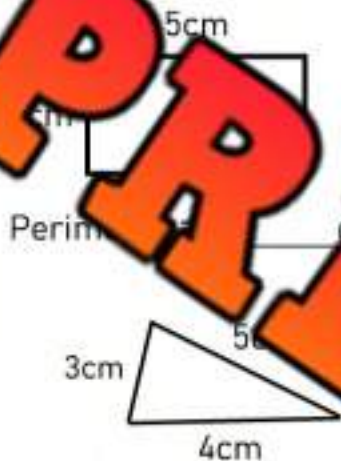
Exit Cards

Cut Out

Cut out the exit cards below and have students complete them at the end of class

Name: _____

Find the perimeter of the shapes below.

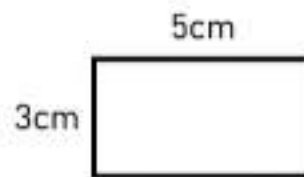


Perimeter = _____ cm

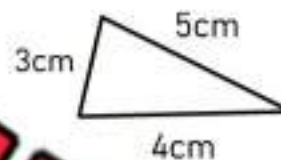
Perimeter = _____ cm

Name: _____

Find the perimeter of the shapes below.



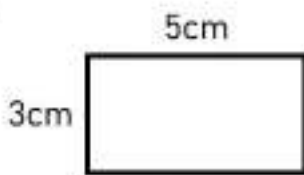
Perimeter = _____ cm



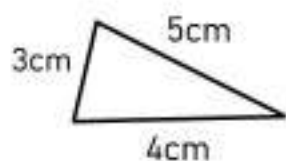
Perimeter = _____ cm

Name: _____

Find the perimeter of the shapes below.



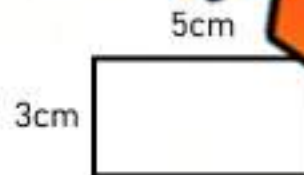
Perimeter = _____ cm



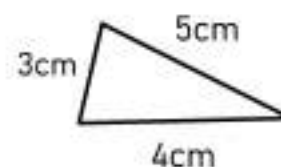
Perimeter = _____ cm

Name: _____

Find the perimeter of the shapes below.



Perimeter = _____ cm



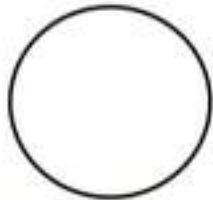
Perimeter = _____ cm

Perimeter of Curved Shapes**Questions**

Step 1 - use a string to find the length of these shapes.

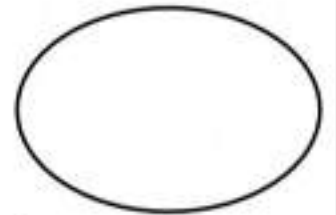
Step 2 - measure the length of the string with a ruler to find the perimeter

1)



Perimeter = _____

2)



Perimeter = _____

3)



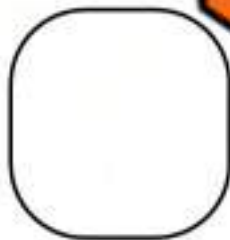
Perimeter = _____

4)



Perimeter = _____

5)



Perimeter = _____

6)



Perimeter = _____

7)



Perimeter = _____

8)



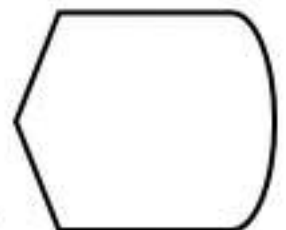
Perimeter = _____

9)



Perimeter = _____

10)



Perimeter = _____

Perimeter of Curved Shapes**Questions**

Draw a shape with a curved line using the perimeter given. Use a piece of string to know how long the curved shape is.

1)

Perimeter = 10cm

2)

Perimeter = 12cm

3)

Perimeter = 14cm

4)

Perimeter = 8cm

5)

Perimeter = 16cm

6)

Perimeter = 20cm

7)

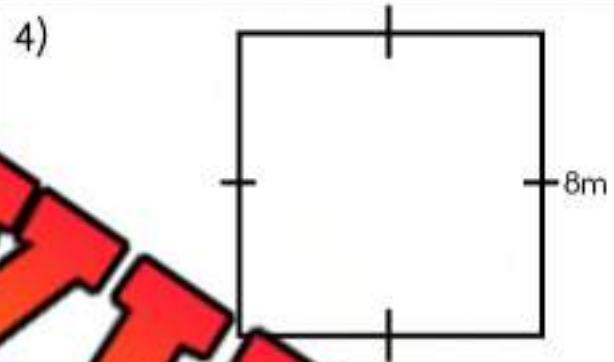
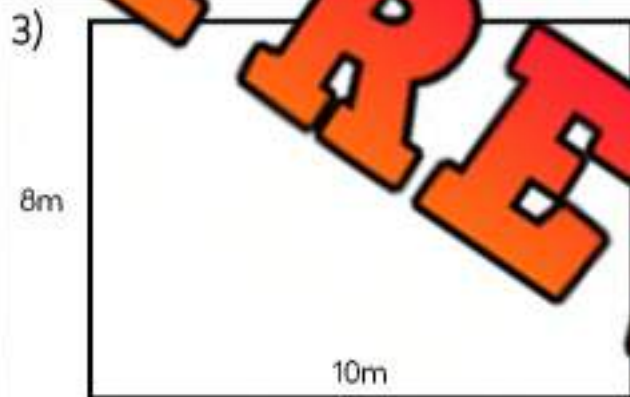
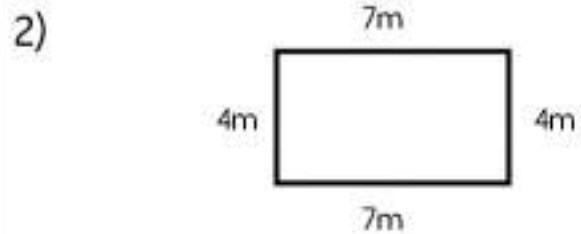
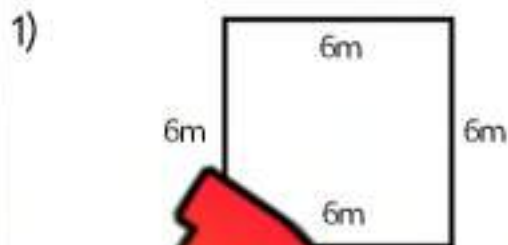
Perimeter = 22cm

8)

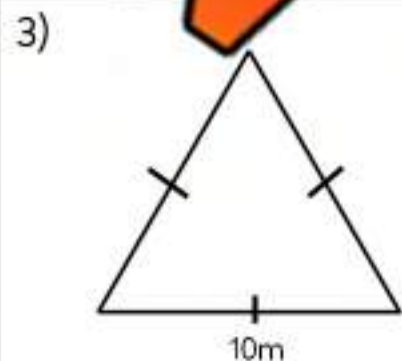
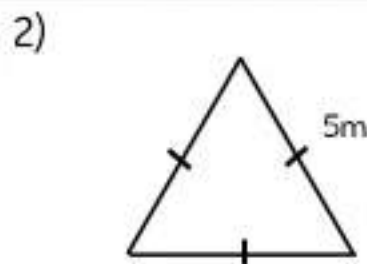
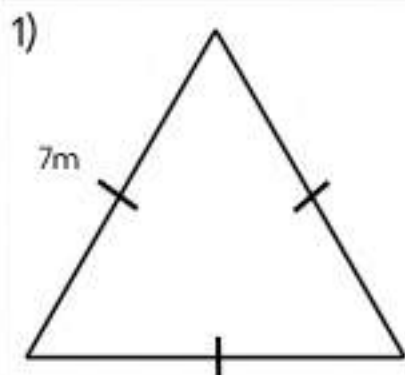
Perimeter = 18cm**PREVIEW**

Finding Perimeter Using Meters**Part 1**

Find the perimeter of the shapes using metres

**Part 2**

Find the perimeter of the equilateral triangles below



Perimeter Word Problems**Instructions**

Draw a picture of the problem and then find the perimeter

1) A computer screen is 15cm by 10cm. What is the perimeter of the screen?

2) Paul is walking around his yard. His yard is 20m by 10m. What is the perimeter of his yard?



3) The school yard is a rectangle that is 30m by 20m. What is the perimeter of the yard?

4) A poster is 15cm by 10cm. What is the perimeter of the poster?



5) Mrs. Wilson is putting a border around her bulletin board. The board is 200cm by 1m. What is the perimeter of the bulletin board?



Exit Cards

Cut Out

Cut out the exit cards below and have students complete them at the end of class

Name: _____

- 1) Convert the units so they are all the same and calculate the perimeter.

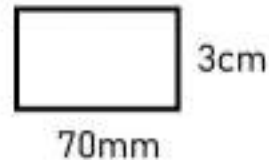


Perimeter = _____ cm _____ mm

- 2) A soccer field has a length of 20m and a perimeter of 90m. What is the width of the soccer field?

Name: _____

- 1) Convert the units so they are all the same and calculate the perimeter.

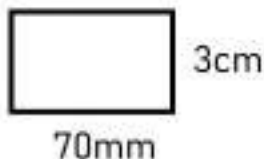


Perimeter = _____ cm _____ mm

- 2) A soccer field has a length of 20m and a perimeter of 90m. What is the width of the soccer field?

Name: _____

- 1) Convert the units so they are all the same and calculate the perimeter.



Perimeter = _____ cm _____ mm

- 2) A soccer field has a length of 20m and a perimeter of 90m. What is the width of the soccer field?

Name: _____

- 1) Convert the units so they are all the same and calculate the perimeter.



Perimeter = _____ cm _____ mm

- 2) A soccer field has a length of 20m and a perimeter of 90m. What is the width of the soccer field?

Perimeter Word Problems - Unknown Slide**Questions**

Draw a picture of the problem and then find the perimeter

1) The perimeter of a square house is 24 metres. What are the lengths of each side?



2) A rectangular picture frame has a perimeter of 100 cm. The top and bottom have side lengths of 20 cm each. What are the side lengths of the other two sides?



3) A rectangular garden has a perimeter of 20 m. Two of the side lengths are 6 m. What are the lengths of the other sides?



4) A triangle baseball field has a perimeter of 68 metres. Two of the side lengths are 22 m. What is the length of the third side?



Line, Rays, and Line Segments

Point



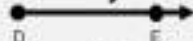
A **point** is a dot. We often name points with a capital letter

Line



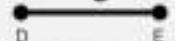
A **line** is straight and goes on forever in both directions (arrows). Lines can have points on them (\overleftrightarrow{AB} or \overleftrightarrow{BA})

Ray



A **ray** is a straight path that goes on forever in one direction (1 arrow). The ray above is \overrightarrow{DE} .

Line Segment



A **line segment** is a straight line between two points. The line segment above is \overline{DE} or \overline{ED} .

Part 1

Label whether the example is a point, line, ray or line segment

1)	2)	3)	4)
Line JK or KJ JK or KJ			
5)	6)	7)	8)
9)	10)	11)	

Part 2

Construct a ray, line, point, and line segment. Label each.

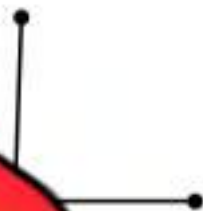
1)	2)	3)	4)
Line Segment - AB	Point C	Line - QR	Ray - MN

Superimposing Angles

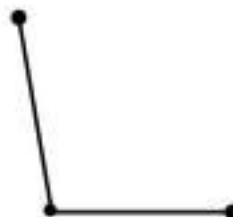
Compare

Cut out the angle and place them over the angles above to compare them

1)

Bigger than 90° Smaller than 90°

2)

Bigger than 90° Smaller than 90°

3)

Bigger than 90° Smaller than 90°

4)

Bigger than 90° Smaller than 90°

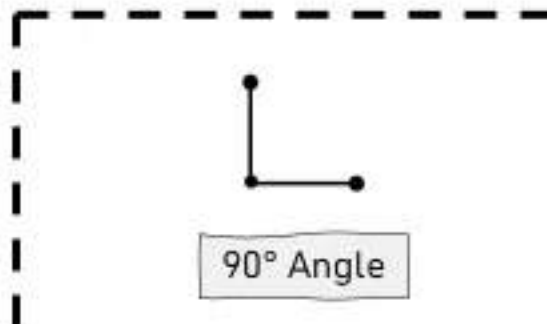
5)

Bigger than 90° Smaller than 90°

6)

Bigger than 90° Smaller than 90°

7)

Bigger than 90° Smaller than 90° 

90° Angle

Superimposing Angles

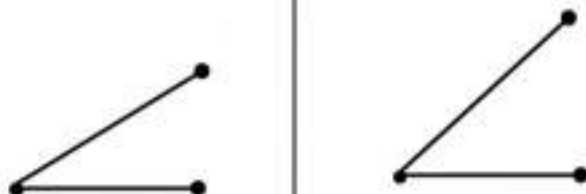
Compare

Cut out the angles and use them to compare the two angles above.
Circle the larger angle.

1)



2)



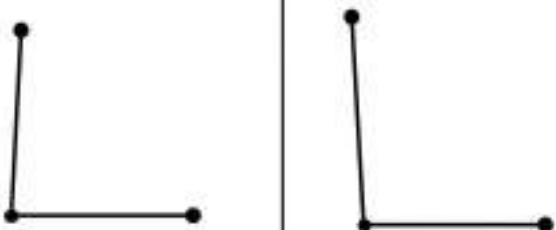
3)



4)



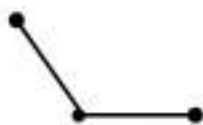
5)



6)



90° Angle



120° Angle



45° Angle

Exit Cards

Cut Out

Cut out the exit cards below and have students complete them at the end of class

Name: _____

Compare the two angles above.
Circle the larger angle.

1)



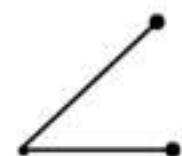
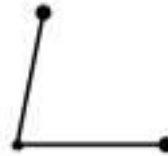
2)



Name: _____

Compare the two angles above.
Circle the larger angle.

1)



2)



Name: _____

Compare the two angles above.
Circle the larger angle.

1)



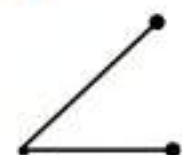
2)



Name: _____

Compare the two angles above.
Circle the larger angle.

1)



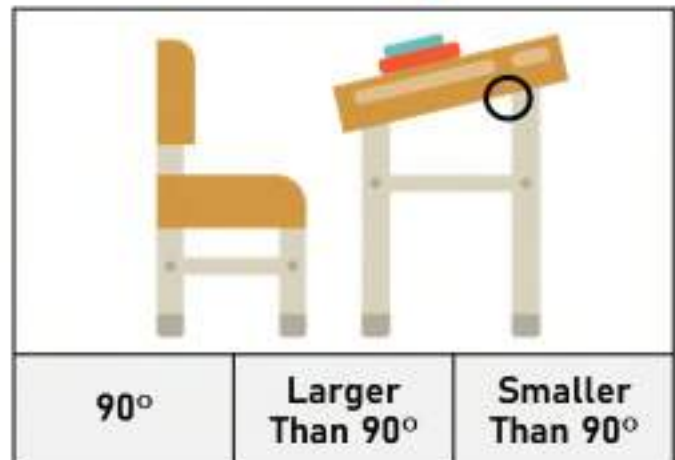
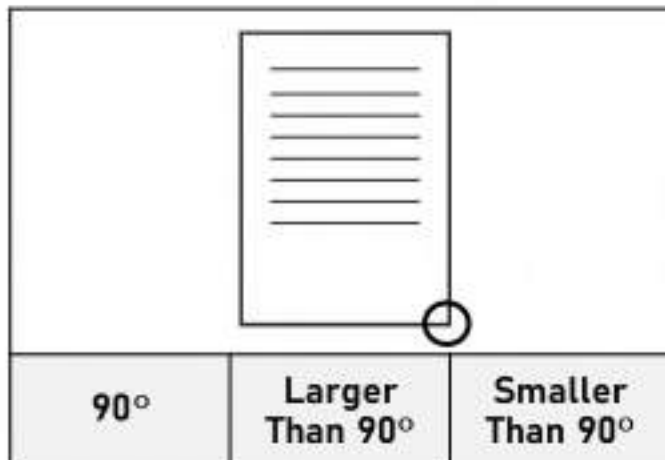
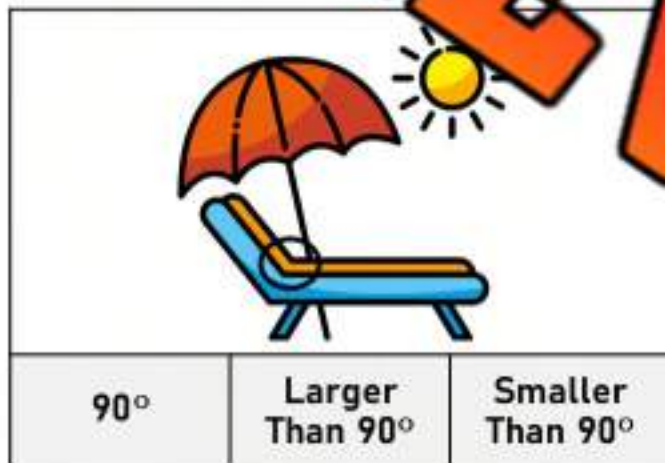
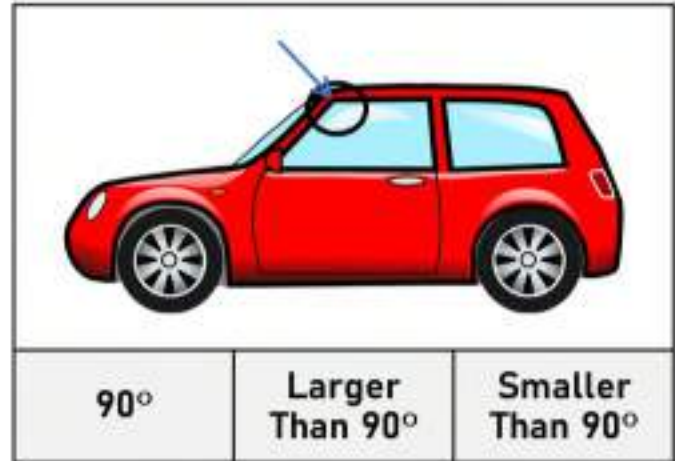
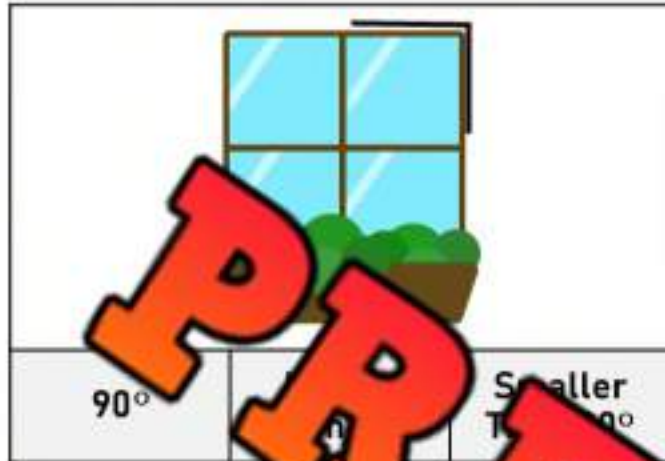
2)



Finding Angles In My Environment

Investigate

Find examples of angles in your environment



Finding Angles

Find

Find 90° angles, larger than 90° , and smaller than 90° angles on the picture. Circle the angle on the picture and label it 1, 2, or 3

1 = 90° angle 2 = Larger than 90° angle 3 = Smaller than 90° angle



Name: _____

Finding Angles

Find Find 90° angles, larger than 90°, and smaller than 90° angles in the picture. Circle the angle on the picture and label it 1, 2, or 3

1 = 90° angle 2 = Larger than 90° angle 3 = Smaller than 90° angle



Measurement Unit Test

Part 1 Use a ruler to measure the lines below

1)



_____ cm

2)



_____ cm

3)



_____ cm

Part 2 Draw a line that is the correct length

1)

5 cm

2)

3 cm

3)

4 cm

Part 3 Fill in the table

mm			m
10	1	100	1
20	2		
	3		
40		400	
50			
	6	600	
	7		7
	8	800	
90			9
100		1000	

Part 4 Convert the units of measurement below

1) 1m

_____ cm

3) 5m

_____ cm

5) 500cm

_____ m

2) 20mm

_____ cm

4) 50mm

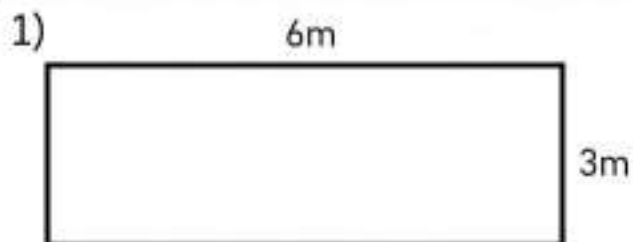
_____ cm

6) 500mm

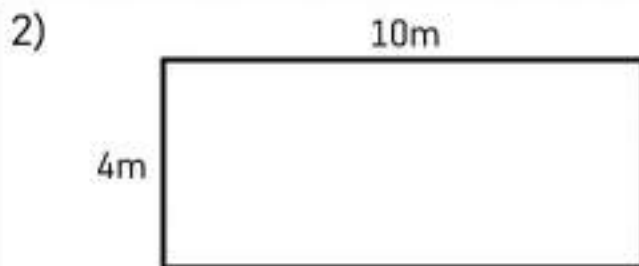
_____ cm

Part 5

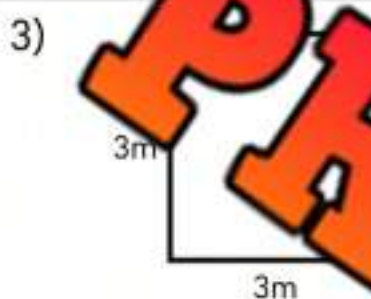
Find the perimeter



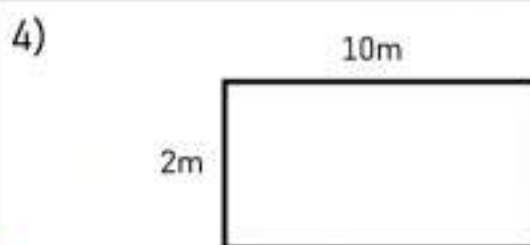
Perimeter: _____



Perimeter: _____



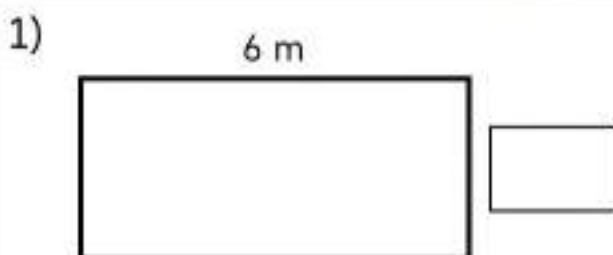
Perimeter: _____



Perimeter: _____

Part 6

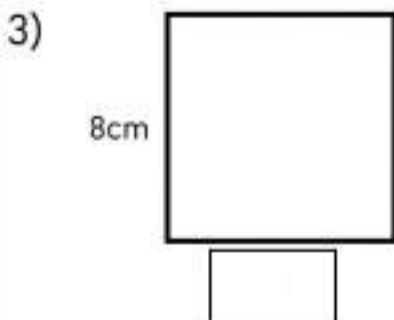
Use the perimeter to find the unknown side length



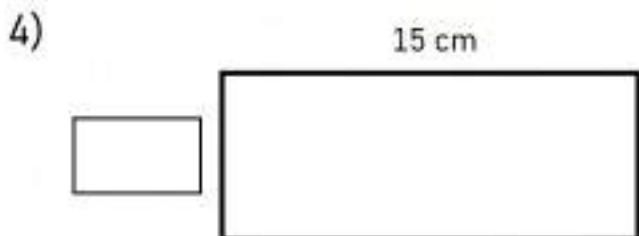
Perimeter: 16 m



Perimeter: 30 m



Perimeter: 32 cm



Perimeter: 40 cm

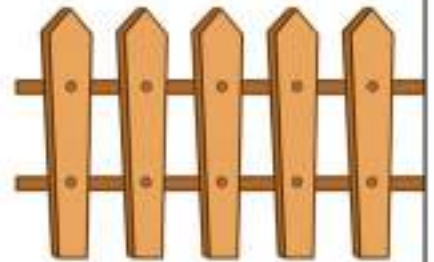
Part 7

Solve the word problems below

1) A phone is 10cm by 5cm. What is the perimeter of the phone?



2) Fred walked the distance around his yard. His yard is 10m by 50m. What is the perimeter of his yard?



3) A triangular pizza has a crust with a perimeter of 100 cm. Two sides of the triangle are 14 cm. What is the length of the other side?



4) A rectangular computer screen has a perimeter of 66 cm. Two sides are 22 cm. What are the lengths of the other sides?





Grade 3 Time



	Curriculum Expectations	Pages
T.1	<p><u>Students tell time using clocks.</u></p> <ul style="list-style-type: none">▪ Investigate relationships between seconds, minutes, and hours using an analog clock.▪ Relate minutes past the hour to minutes until the next hour.▪ Describe time of day as a.m. or p.m. relative to 12-hour cycles of day and night.▪ Tell time using analog and digital clocks.▪ Express time of day in relation to one 24-hour cycle.	136 - 181
TQ	Tests and Quizzes	182 - 183



Measuring Time – Seconds, Days, Hours, Minutes

Seconds (sec)	Minutes (min)	Hours (hr)	Days (d)
60 seconds = 1 minute	60 minutes = 1 hour	24 hours = 1 day	1 day = 24 hours

Part 1

Fill in the tables below

Seconds	Minutes
60	1
	2
	3
	4
300	5
360	
420	
	8
	9
600	

Minutes	Hours
60	1
	2
180	
	5
	7
480	
540	
	10

Hours	Days
24	1
48	2
72	
	4
	5
144	
168	
	8
	9

Part 2

Convert the units of measurement below

1) 1 hr _____ min

5) 240 mins _____ hr

9) 5 d _____ hrs

2) 240 sec _____ min

6) 72 hrs _____ d

10) 360 min _____ hrs

3) 180 sec _____ min

7) 540 mins _____ hr

11) 240 hrs _____ d

4) 2 d _____ hr

8) 168 hrs _____ d

12) 480mins _____ hrs

Time – Word Problems**Questions**

Read the problems and solve them below

1. Kennedy played in a baseball game that lasted 1 hour and 48 minutes. How many minutes total was the baseball game?



2. Kennedy ran a race in 5 minutes 37 seconds. How many seconds did it take him to run?

3. Jeremy and Jackson play video games every day for 96 days in a row. How many months did they play video games for?



4. Sam and Bruce played a round of golf for 240 minutes. How long did they play golf for?

5. Zachary played in a hockey game yesterday for 10 minutes. How many seconds did he play hockey?



Exit Cards

Cut Out

Cut out the exit cards below and have students complete them at the end of class

Name: _____

a) Convert the unit of measurement below

$$420 \text{ mins} = \underline{\hspace{2cm}} \text{ hrs}$$

b) Lily watched a movie that lasted 2 hours and 35 minutes. How many minutes long was the movie?

Name: _____

a) Convert the unit of measurement below

$$420 \text{ mins} = \underline{\hspace{2cm}} \text{ hrs}$$

b) Lily watched a movie that lasted 2 hours and 35 minutes. How many minutes long was the movie?

Name: _____

a) Convert the unit of measurement below

$$420 \text{ mins} = \underline{\hspace{2cm}} \text{ hrs}$$

b) Lily watched a movie that lasted 2 hours and 35 minutes. How many minutes long was the movie?

Name: _____

a) Convert the unit of measurement below

$$420 \text{ mins} = \underline{\hspace{2cm}} \text{ hrs}$$

b) Lily watched a movie that lasted 2 hours and 35 minutes. How many minutes long was the movie?

Name: _____

139

Activity Title: Time Treasure Hunt

Objective What are we learning about?

To help students understand and practice converting time between seconds, minutes, and hours through a fun and engaging treasure hunt.

Materials What you will need for the activity.

- Stopwatch (or a smartphone)
- Index cards
- Markers
- Small prizes (optional)
- Tape

**Instructions** How you will complete the activity

- 1) Prepare before class by writing different time conversion challenges on index cards. For example, "Convert 300 seconds to minutes." "How many seconds are in 2 hours?"
- 2) Hide these cards around the classroom or in a designated safe outdoor area, taping them under chairs, desks, or tucked into non-obvious places.
- 3) Divide the class into small teams and give each team a stopwatch.
- 4) Explain the game: each team will hunt for a card, solve the problem as quickly as they can, and return to you for verification.
- 5) Start the timer when you say "Go!" Each team rushes to find their first card.
- 6) When a team thinks they have the correct answer, they come back to you. If correct, they receive a small prize and move on to find the next card.
- 7) The game continues until all cards are found or you call time. The team with the most correct answers wins.
- 8) Discuss the game, focusing on the time conversion problems and solutions each team encountered.

Instructions

Cut out the cards below

Convert 120 seconds to minutes.

How many seconds are there in 3 minutes?

How many minutes are there in 180 seconds?

Convert 2 hours to minutes.

If a cartoon lasts 300 seconds, how many minutes is that?

How many minutes are there in half an hour?

Change 600 seconds into minutes.

Convert 480 seconds to minutes.

Instructions

Cut out the cards below

If you play for 900 seconds, how long is that in minutes?

How many seconds are in 5 minutes of a game?

Change 180 seconds into minutes.

Convert 3 hours into minutes.

If a movie is 7200 seconds long, how many hours is that?

How long is 2 hours in minutes?

Convert 15 minutes to seconds.

How many seconds are there in 1 hour?

PREVIEW

Instructions

Cut out the cards below

How many hours are there
in 360 minutes?

If a train travels for 3 hours,
how many minutes is that?

Convert 20 minutes
to seconds.

If you read for 15 minutes,
how many seconds is that?

How many seconds are in
10 minutes?

Convert 2 hours to
seconds.

Sally bakes cookies for
1800 seconds. How long is
that in minutes?

If a soccer match lasts 2
hours, how many minutes is
that?

PREVIEW

Instructions

Cut out the cards below

Convert 20 minutes to seconds.

How many minutes are there in 5 hours?

How many minutes are there in 2 hours?

If you sleep for 8 hours, how many minutes is that?

Convert 5 days into hours.

Change 30 minutes into hours.

If a TV show lasts 2700 seconds, how many minutes is that?

Convert 4 hours into seconds.

PREVIEW

Telling Time – Digital Clocks

A **digital clock** tells us what time it is using numbers. The first number before the colon tells us what hour it is. The second set of numbers tells us how many minutes have passed the hour.

Examples

7:20

Hour = 7 Minutes = 20

2:47

Hour = 2 Minutes = 47

Part 1

Fill in the answers below – Hours and Minutes

1)

Hour = _____ Minutes = _____

2)

1:58

Hour = _____ Minutes = _____

3)

9:28

Hour = _____ Minutes = _____

4:37

Hour = _____ Minutes = _____

5)

11:42

Hour = _____ Minutes = _____

6)

Hour = _____ Minutes = _____

Part 2

Fill in the answers below – Hours, Minutes and Seconds

Example**10:24:18**

Hour = 10 Minutes = 24 Seconds = 18

1)

3:17:12

Hour = _____ Minutes = _____ Seconds = _____

2)

12:43:35

Hour = _____ Minutes = _____ Seconds = _____

3)

9:12:38

Hour = _____ Minutes = _____ Seconds = _____

4)

5:23:02

Hour = _____ Minutes = _____ Seconds = _____

Name: _____

145

Curriculum Connection
T.1

Making a Clock

Directions

Cut out the parts of the clock and paste them in the right spots



1

2

3

4

5

6

7

8

9

10

11

12

Analog Clock

An **analog clock** tells us what time it is. The short hand tells us what hour it is. When the hour hand moves around, it goes up by 1 each time. The long hand tells us how many minutes have gone by in the hour. The long hand goes up by 5 minutes at each interval.

Part 1 Fill in the minutes around the clock. Then label the hour and minute hand



Part 2 How many minutes have gone by in the hour?











Telling Time – Nearest Hour**Questions**

What time is it? Write the times on the digital clocks below

1)



:00

2)



:00

3)



:00

4)



:00

5)



:00

6)



:00

7)



:00

8)



:00

Telling Time – Half Past**Questions**

What time is it? Write the times on the digital clocks below

1)



2)



3)



4)



5)



6)



7)



8)



Drawing Clocks – Half Past**Part 1**

Draw the hour hand on the clocks below to show the correct time

1)



9:30

2)



9:30

3)



1:30

4)



7:30

Part 2

Draw the minute hand on the clocks below to show the correct time

1)



2:30

2)



12:30

3)



11:30

4)



6:30

Drawing Clocks – Half Past**Questions**

Draw the hour and minute hand to show what time it is

1)



2)



3)



4)



5)



6)



7)



8)



Exit Cards

Cut Out

Cut out the exit cards below and have students complete them at the end of class

Name: _____

1) What time is it?



2) Draw the time on the clock: 5:15



Name: _____

1) What time is it?



2) Draw the time on the clock: 5:15



Name: _____

1) What time is it?

2) Draw the time on the clock: 5:15

Name: _____

1) What time is it?

2) Draw the time on the clock: 5:15

Math Activity: Time Travelers

Objective

What are we learning about?

To help students learn to read analog clocks and calculate elapsed time between two events.

Materials

What you will need for the activity.

- Paper plates
- Markers
- Scissors
- Brass paper fasteners
- Worksheets with clock faces



Instructions

How you will complete the activity.

1. Distribute one paper plate to each student to use as a clock face.
2. Instruct students to write the numbers 1 through 12 in the appropriate places around the edge of the plate.
3. Have students cut out two arrows from paper — a longer one for the minute hand and a shorter one for the hour hand.
4. Show the students how to attach the clock hands to the center of the plate using a brass paper fastener, making sure the hands can move freely.
5. Demonstrate how to set the clock to a specific time, then show changing the time to demonstrate elapsed time.
6. Provide each student with a worksheet that contains various times and ask them to set their paper clock to start at the first time and then move the hands to the second time.
7. Discuss as a class how to figure out how many hours and minutes have passed between the two times.

Math Activity: Time Travelers**Questions**

Answer the questions below



	Word Problems	Answers
1	Set your paper clock to 3:00 PM. Move the hands to show 5:45 PM. How many hours and minutes have passed?	
2	If you start your homework at 4:30 PM and finish at 6:15 PM, how long did you spend on homework?	
3	Your soccer practice starts at 7:00 AM and ends at 9:30 AM. What is the duration of your soccer practice?	
4	If a movie begins at 7:00 PM and ends at 9:30 PM, how long is the movie?	
5	Suppose you go to bed at 8:00 PM and wake up at 6:00 AM the next day. How many hours did you sleep?	

Telling Time – Quarter To, Quarter After

Quarter To



Quarter After

Questions

Is the time – Quarter To or Quarter After? Circle the answer

1)



Quarter To

Quarter After

2)



Quarter To

Quarter After

3)



Quarter To

Quarter After

4)



Quarter To

Quarter After

5)



Quarter To

Quarter After

6)



Quarter To

Quarter After

7)



Quarter To

Quarter After

8)



Quarter To

Quarter After

9)



Quarter To

Quarter After

10)



Quarter To

Quarter After

11)



Quarter To

Quarter After

12)



Quarter To

Quarter After

Telling Time Word Problems

**Questions**

Answer the questions below

	Word Problems
1	Emily's soccer practice starts at quarter to 4. What time is that?
2	_____ at quarter after 7. What time is that?
3	John's piano lesson begins at _____ after 5. What time is that?
4	Bella went to bed at quarter after 8. What time is that?
5	The school bus leaves at quarter after 7 in the morning. What time is that?
6	Sarah's favourite TV show begins at quarter to 8 in the evening. What time is that?
7	Dinner is scheduled for quarter to 6. What time is that?

Telling Time Word Problems**Questions**

Answer the questions below

Word Problems

1

Sarah's gymnastics class begins at quarter after 4 and lasts for 1 hour and 15 minutes. After class, she spends 30 minutes talking with friends. What time does she leave the gym?

2

Emily started baking cookies at 3:00. The cookies took 20 minutes to bake, and she let them cool for 15 minutes. What time were the cookies ready to eat?

3

A movie starts at quarter after 7 in the evening and lasts for 1 hour and 45 minutes. After the movie, the family takes 20 minutes to drive home. What time do they arrive home?

Telling Time – Quarter To, Quarter After**Questions**

What time is it? Write the times on the digital clocks below

1)



:45

2)



:15

3)



:45

4)



:45

5)



:

6)



:

7)



:

8)



:

Drawing Clocks – Quarter To, Quarter After**Part 1**

Draw the hour hand on the clocks below to show the correct time

1)



9:15

2)



4:15

3)



3:15

4)



7:45

Part 2

Draw the minute hand on the clocks below to show the correct time

1)



9:15

2)



10:15

3)



8:45

4)



2:45

Drawing Clocks – Quarter To, Quarter After**Questions**

Draw the hour and minute hand to show what time it is

1)



2)



2:15

3)



4:15

4)



6:15

5)



5:45

6)



3:15

7)



8:45

8)



7:45

Telling Time – Multiple Choice**Questions**

Circle the time showing on the clock

1)

 09:50 11:50 09:55

2)

 02:30 06:10 01:30

3)

 01:40 01:45 01:40

4)

 11:25 11:50 05:55

5)

 07:45 09:35 06:45

6)

 09:25 05:35 05:35

7)

 03:45 02:40 08:15

8)

 10:30 03:45 10:15

Telling Time – Multiple Choice**Questions**

Write the letter from below under each clock

1)



2)



3)



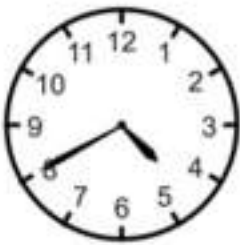
4)



6)



7)



8)



(A)

10 : 55

(B)

4 : 40

(C)

9 : 45

(D)

12 : 25

(E)

10 : 15

(F)

8 : 55

(G)

9 : 10

(H)

4 : 00

(I)

11 : 20

Exit Cards

Cut Out

Cut out the exit cards below and have students complete them at the end of class

Name: _____

1) What time is it?



A

12:20

B

4:55

C

3:35

Name: _____

1) What time is it?



A

12:20

B

4:55

C

3:35

Name: _____

1) What time is it?



A

12:20

B

4:55

C

3:35

Name: _____

1) What time is it?



A

12:20

B

4:55

C

3:35

Telling Time – Every Minute

Questions

Read the clock and write the time below

1)

 :

2)

 :

3)

 :

4)

 :

5)

 :

6)

 :

7)

 :

8)

 :

9)

 :

10)

 :

11)

 :

12)

 :

Matching Game: Telling Time To The Nearest Minute

Objective

What are we learning about?

To help students practice telling time to the nearest minute by matching digital times to their analog counterparts.

Materials: _____ you will need for the activity.

- Pre-prepared matching game cards with digital and analog clocks.
- Small bags or envelopes to hold the card sets for each group



Instructions

How you will complete the

1. Before the class, the teacher will cut out the prepared matching game cards.
2. Divide the students into small groups and give each group a small envelope containing a set of the matching cards.
3. In their groups, students will spread out the cards face down on their table.
4. Each person takes a turn to try to match two cards – one digital time with its matching analog clock.
5. If they find a correct match, they keep the cards out and continue with their next turn. If the cards don't match, they turn them back over in the same place, and the next player takes a turn.
6. The activity continues until all pairs are correctly matched within each group.

Cards

Matching Game Cards

Analog Clock

Digital Clock



12:19



1:50



2:16



8:16



9:38

PREVIEW

Cards

Matching Game Cards

Analog Clock

Digital Clock



12:21



3:44



9:17



5:52



12:53

PREVIEW

Cards

Matching Game Cards

Analog Clock

Digital Clock



9:01



4:50



10:17



2:27



10:58

PREVIEW

Time – AM and PM

AM	PM
<ul style="list-style-type: none"> An abbreviation of the Latin phrase ante merīdiem (a.m.) Means before midday (before noon) 	<ul style="list-style-type: none"> An abbreviation of the Latin phrase post merīdiem (p.m.) Means after midday (after noon)


Part 1


Circle the correct option

	Description	AM	PM
1)	We wake up at the...	AM	PM
2)	We have breakfast at...	AM	PM
3)	Steven goes to bed at...	AM	PM
4)	Dennis works tomorrow at 8:30...	AM	PM
5)	Erica saw the stars...	AM	PM
6)	Charlie goes to school...	AM	PM
7)	Ryan has basketball practice after school at...	AM	PM


Part 2


Fill in the time using a.m. or p.m.


1) 
 : am / pm

2) 
 : am / pm


 : am / pm

4) 
 : am / pm

5) 
 : am / pm

6) 
 : am / pm

Telling Time Word Problems

**Questions**

Answer the questions below

Word Problems

1

Emma started her school day at 8:00 AM. She had lunch at 12:00 PM and went home at 3:00 PM. How many hours did she spend at school?

2

Jack baked 10 cookies at 2:30 PM. The cookies took 45 minutes to bake, and he waited 15 minutes for them to cool. He then spent 1 hour decorating.

a) What time did he finish?

b) How long did it take?

3

Liam started watching a movie marathon at 4:00 PM. The first movie lasted 2 hours. After a 30-minute break, the second movie started at 7:00 PM and ended at 9:00 PM.

a) How much time did he spend watching movies?

b) How much time did he spend taking breaks?

24 – Hour Clock

The 24-hour clock can also be used to tell time. The clock is divided into 24 hours, which means we don't need to repeat the 12-hour A.M. and P.M. cycle. When it is 3:00pm, it is 15:00 on a 24-hour clock. Many people refer to the 24-hour clock as military time. The 24-hour clock is often used in airports and when tracking time between countries.



Questions Assuming it is the afternoon, what time does the clock read in 24hr time?



_____ : _____



_____ : _____



_____ : _____



_____ : _____



_____ : _____



_____ : _____



_____ : _____



_____ : _____

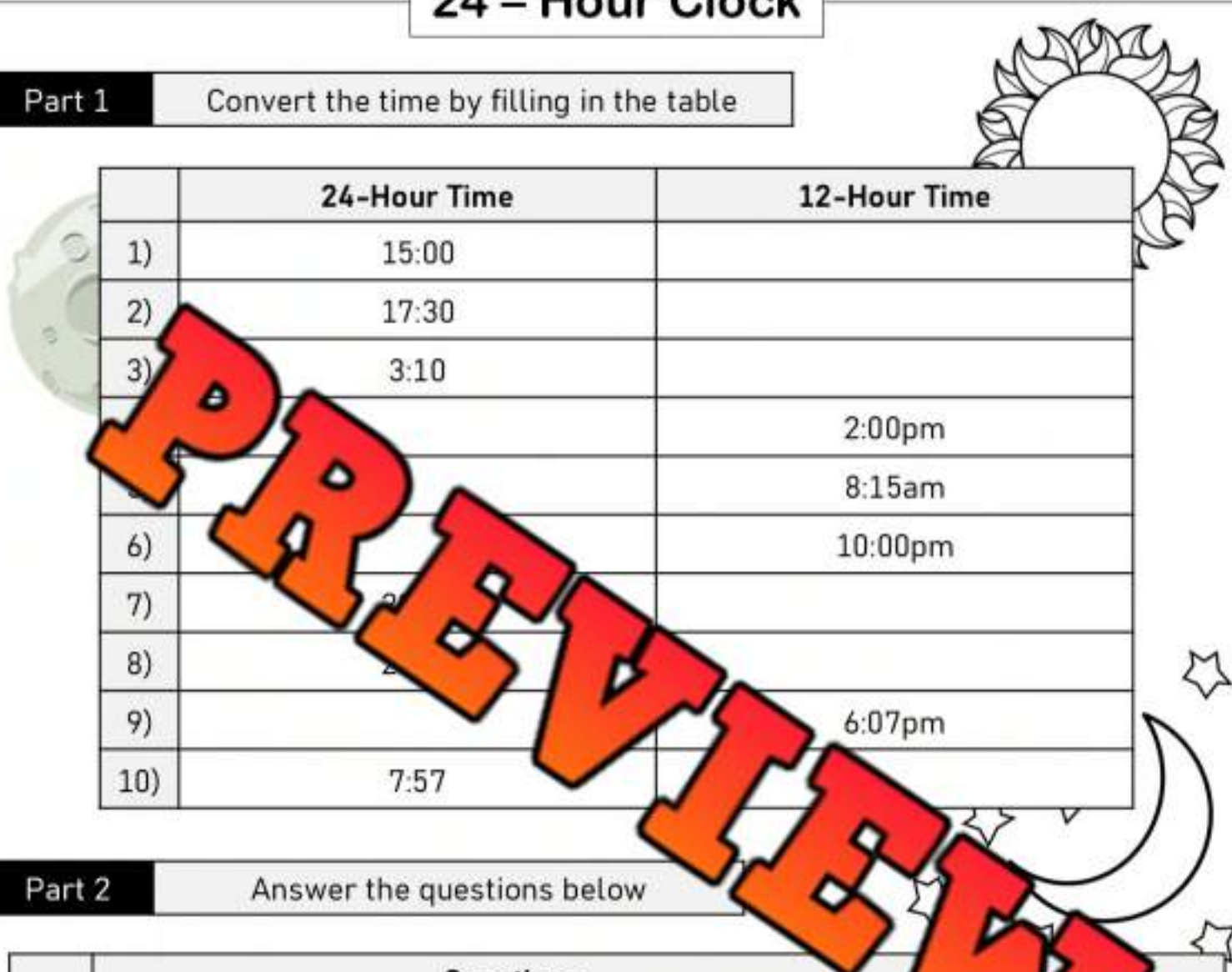


_____ : _____

24 – Hour Clock

Part 1

Convert the time by filling in the table



	24-Hour Time	12-Hour Time
1)	15:00	
2)	17:30	
3)	3:10	
4)		2:00pm
5)		8:15am
6)		10:00pm
7)		
8)		
9)		6:07pm
10)	7:57	

Part 2

Answer the questions below

	Questions	
1)	Hunter's plane leaves at 19:25. What time in AM/PM does Hunter's plane leave?	
2)	Stacey is taking a train at 4:45pm. What time in 24-hour time is the train leaving?	
3)	The baseball game is on at 10:15pm tonight. What time in 24-hour time is the game on at?	
4)	The surgery is planned for 15:27. What time is the surgery in 12-hour time?	
5)	The movie starts at 7:15pm. What time in 24-hour time is the movie starting?	

24-Hour Clock Word Problems**Questions**

Answer the questions below

	Word Problems	Answer
1	Sarah's soccer game starts at 15:30. What time is this in the 12-hour clock?	
2	The TV show airs at 20:45. What time is this in the 12-hour clock?	
3	The train arrives at 07:00. What time is this in the 12-hour clock format.	
4	Lunch is served at 12:00. What time is this in the 12-hour clock?	
5	The movie ends at 23:10. What time is this in the 12-hour clock?	
6	Emma's piano lesson is at 4:30 PM. What time is this in the 24-hour clock?	
7	The bakery opens at 8:00 AM. Write this time in the 24-hour clock format.	
8	The library closes at 9:15 PM. What time is this in the 24-hour clock?	

Math Activity: 24-Hour Time Challenge

Objective

What are we learning about?

To help students understand and practice converting times between 12-hour and 24-hour clock formats.

Materials

What you will need for the activity.

- A copy of the 24-hour conversion chart
- Flashcards with times written in 12-hour format
- Flashcards with times written in 24-hour format
- A buzzer or bell to signal correct answers
- A clock face (optional, for visual reference)



Instructions

How you will complete the activity

1. Start by explaining the 24-hour clock format, using the clock face as a visual guide to show how times after noon are calculated (e.g., 1:00 PM is 13:00).
2. Introduce the flashcards, each showing a time in either 12-hour or 24-hour format.
3. Divide the class into two teams and explain that they will compete to convert the times correctly.
4. Place the flashcards face down on a table. A student from one team turns over a card and has to convert the time to the opposite format.
5. Use the buzzer or bell to signal when they believe they have the correct answer.
6. Award points for correct answers and provide the correct answer for incorrect or missed attempts.
7. Alternate turns between the teams, ensuring each student has at least one chance to participate.
8. Keep score and discuss any tricky conversions after each round.
9. Summarize key points at the end of the game, reinforcing the method to convert times, especially those crossing noon and midnight.

Name: _____

Flashcards

Cut out the times below to use for the activity.

12:00 AM

9:00 AM

1:00

10:00

3:00 AM

12:00 PM

04:00

6:00 AM

3:00 PM

07:00

16:00

PREVIEW

Flashcards

Cut out the times below to use for the activity.

6:00 PM

2:45 AM

2:00

05:25

9:00 PM

7:05 AM

22:00

11:15 PM

10:35 AM

23:30

12:50

PREVIEW

Name: _____

181

Curriculum Connection
T.1

Flashcards

Cut out the times below to use for the activity.

1:20 PM

9:30 PM

2:45

21:55

4:55 PM

11:00 PM

18:10

7:40 PM

2:15 AM

20:05

03:30

PREVIEW

Unit Test – Telling Time

Part 1

Read the clock and write the time below

1)



2)



3)



4)



6)



Part 2

Convert the units of measurement below

	Minutes	Hours
1)	60	
2)		2
3)	180	
4)	240	
5)		5

	Minutes	Hours
6)	150	___ hours ___ mins
7)	195	___ hours ___ mins
8)	262	___ hours ___ mins
9)	345	___ hours ___ mins
10)	400	___ hours ___ mins

Part 3 Convert the units of measurement below

1) 2 hrs _____ min

3) 300 mins _____ hrs

5) 4 d _____ hrs

2) 360 sec _____ min

4) 48hrs _____ d

6) 240 min _____ hrs

Part 4 Draw the hour and minute hands on the clocks below

1)



1:17

2)



5:39

3)



3:28

4)



11

Part 5 Convert the time by filling in the table

	24-Hour Time	12-Hour Time
1)	13:00	
2)	15:30	
3)	5:10	
4)		3:00pm
5)		9:25pm



Google Slides Lessons Preview





Alberta Math Curriculum Patterns & Algebra – Grade 3

3-Part Lesson Format

Part 1 – Minds On!

- Learning Goals
- Discussion Questions
- Quotes
- And More!

LEARNING GOAL

We are learning to find, create, and describe number patterns that increase or decrease so we can understand how numbers change on a hundreds chart.

Racetrack

Students look at a race and describe who is going to come 1st, 2nd, 3rd, 4th, and 5th. Drag the pictures and labels to answer.

Questions	Ordinal Number	Cars
Which car is in 1st place, right now?		
Which car is in 3rd place?		
Who is just after the red car?		
Which car is closest to the finish line?		

Part 2 – Action!

- Writing
- Matching
- Drag and Drop
- Drawing
- And More!

Part 3 – Consolidation!

- Exit Cards
- Quizzes
- Reflection
- And More!

Exit Card - Ordinal Numbers

Replace the 7th chair with the coloured chair.

Select the 3rd tapping for the ice cream. Drag the correct ordinal numbers to label the scoops.

Answer Bank
Fourth
Third
First
Fifth
Second



Alberta Math Curriculum Patterns & Algebra - Grade 3

Decreasing Pattern Rules - Subtracting To 100

Drag the numbers to create patterns according to the pattern rule.

#	PATTERN	RULE
1)		Start at 43, then subtract 3 each time
2)		Start at 68, then subtract 2 each time
3)		Start at 98, then subtract 10 each time
4)		Start at 91, then subtract 6 each time
5)		Start at 72, then subtract 4 each time

1 2 3 4 5 6 7 8 9 0

Table - Multiplication

Drag the numbers to fill in the tables. The first one is

Rule = Multiply by 0		Rule = Multiply by 2		Rule = Multiply by 10		Rule = Multiply by 3		Rule = Multiply by 5	
In	Out	In	Out	In	Out	In	Out	In	Out
16	0	5		1		0		3	
7	0	4		3		2		5	
9	0	7		8		6		2	
4	0	12		9		9		8	
22	0	20		110		11		10	

1 2 3 4 5 6 7 8 9 0

Drag the numbers to fill in the blanks after investigating the patterns between multiplication and division.

$6 \times \underline{\quad} = 6$	$12 \div \underline{\quad} = 6$
$\underline{\quad} \times 2 = 12$	$\underline{\quad} + 3 = 6$
$6 \times \underline{\quad} = 18$	$24 \div \underline{\quad} = 6$
$6 \times 4 = \underline{\quad}$	$30 \div 5 = \underline{\quad}$
$6 \times \underline{\quad} = 30$	$36 \div \underline{\quad} = 6$
$\underline{\quad} \times 6 = 36$	$\underline{\quad} - 7 = 6$
$6 \times \underline{\quad} = 42$	$48 \div \underline{\quad} = 6$
$6 \times 8 = \underline{\quad}$	$54 \div 9 = \underline{\quad}$
$6 \times \underline{\quad} = 54$	$60 \div \underline{\quad} = 6$
$\underline{\quad} \times 10 = 60$	

1 2 3 4 5 6 7 8 9 0



Alberta Math Curriculum Patterns & Algebra - Grade 3

Table of Values - Increasing/Decreasing Pattern

Drag the numbers to fill in the tables of values below and determine the increasing/decreasing pattern.

Term Number	Term Value
1	79
2	89
3	99
4	
5	
6	

1 2 3 4 5 6 7 8 9 0

Term Number	Term Value
1	106
2	100
3	94
4	
5	
6	

1 2 3 4 5 6 7 8 9 0

Pre-Algebra - Balance

Balance the scales by putting the same number of circles on each scale.

Drag the numbers to show how many balls are needed to balance the scales?

1) $4 + \underline{\quad} = 11$	2) $2 + \underline{\quad} = 10$	3) $7 + \underline{\quad} = 15$	4) $0 + \underline{\quad} = 5$
5) $3 + \underline{\quad} = 9$	6) $1 + \underline{\quad} = 5$	7) $8 + \underline{\quad} = 10$	8) $6 + \underline{\quad} = 6$

1 2 3 4 5 6 7 8 9 0

Pre-Algebra - Balance

Balance the scales by putting the same number of circles on each scale.

Drag the numbers to show how many balls you need to take away to balance the scales.

1) $8 - \underline{\quad} = 2$	2) $13 - \underline{\quad} = 9$	3) $7 - \underline{\quad} = 5$	4) $10 - \underline{\quad} = 0$
5) $12 - \underline{\quad} = 1$	6) $4 - \underline{\quad} = 2$	7) $9 - \underline{\quad} = 6$	8) $15 - \underline{\quad} = 8$

1 2 3 4 5 6 7 8 9 0



Workbook Preview





Grade 3 Patterns and Algebra



	Curriculum Expectations	Pages
	<p><u>Students analyze patterns in numerical sequences.</u></p> <ul style="list-style-type: none">Recognize familiar numerical sequences, including the sequence of even or odd numbers.Describe position in a sequence using ordinal numbers.Differentiate between finite and infinite sequences.	
P.1	<p><u>Recognize skip-counting sequences in various</u></p>	5-79
<p>Preview of 100 pages from this product that contains 270 pages total.</p>		
A.1	<p><u>Students illustrate equality with equations.</u></p> <ul style="list-style-type: none">Write equations that represent equality between a number and an expression or between two different expressions of the same number.Model equations that include an unknown value, including with a balance.Determine an unknown value on the left or right side of an equation, limited to equations with one operation.Solve problems using equations, limited to equations with one operation.	83-141
TQ	Tests and Quizzes	80-81, 142-143

Name: _____

6

Hundreds Chart Patterns

Questions

Fill in the missing numbers

1	2	3	4	5	6	7	8	9	10
11		13	14	15	16	17	18	19	20
21			24	25	26	27	28	29	30
31	32		34	35	36	37	38	39	40
41	42	43		45		47	48	49	50
51	52	53	54		56		58	59	60
61	62	63	64	65			69		70
71	72	73	74	75	76	77	78		80
81	82	83	84	85	86	87	88		90
91	92	93	94	95	96	97	98	99	100

Directions

Follow the instructions below

1) Colour the odd numbers



2) Colour the even numbers



Name: _____

7

Hundreds Chart Patterns

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Directions

Follow the instructions below

A number pattern needs to have a rule that the pattern follows. Colour the numbers in the hundreds chart that show the pattern rule

Rule: start at 5, add 5 each time

Hundreds Chart Patterns

Directions

Follow the instructions below

Colour the pattern rule: start at 3, add 3 each time

1	2	3	4	5	6	7	8	9	10
11		13	14	15	16	17	18	19	20
21		23	24	25	26	27	28	29	30
31		33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Colour the pattern rule: start at 1, add 1 each time

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Name: _____

9

Curriculum Connection
P.1

Hundreds Chart Patterns

Directions

Create your own patterns on the hundreds chart. Write the rule

Pattern Rule:




1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Pattern Rule:

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100






Increasing Pattern – Numbers to 100**Questions**

Fill in the blanks below

1.  1 7 13 19 _____
2.  23 27 35 _____
3.  42 50 58 66 _____
4.  66 71 76 81 _____
5.  76 79 82 85 _____

Increasing Pattern – Numbers to 1000**Questions**

Fill in the blanks below

1.  104 112 120 128
2.  24 255 261
3.  406 420 448
4.  686 706 726 746
5.  815 831 847 863

Introduction To Ordinal Numbers

Matching

Match the ordinal numbers

Fourth

2nd

Second

5th

Third

9th

Eighth

3rd

First

8th

Seventh

1st

Ninth

4th

Third

6th

Fifth

7th

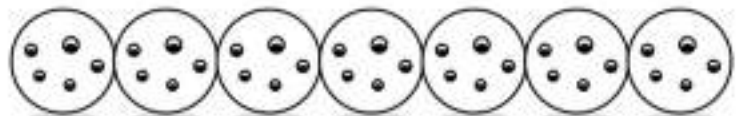
First

PREVIEW

Directions

Shade in the correct cookie using any colour or your fingers

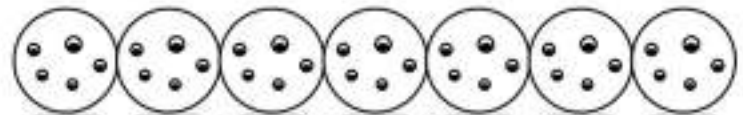
1) Shade in the fifth cookie



2) Shade in the seventh cookie



3) Shade in the second cookie



Ordinal Numbers – The Big Race



Rabbit



Elephant



Cat



Dog



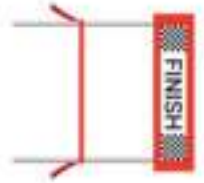
Deer










Lion



Cheetah



Part 1 What place did each animal get - 1st, 2nd, 3rd, 4th, 5th, 6th, 7th

Animal							
Place							

Part 2 What place did each animal get - Fill in the blanks

Word Bank: First, Second, Third, Fourth, Fifth, Sixth, Seventh

- 1) The cat was in _____ place.
- 2) The lion was in _____ place.
- 3) The deer was in _____ place.
- 4) The elephant was in _____ place.
- 5) The rabbit was in _____ place.
- 6) The dog was in _____ place.
- 7) The cheetah was in _____ place.

Ordinal Numbers – Ice Cream Scoops**Questions**

Colour the scoops of ice cream starting at the bottom

- 1) Colour the fifth scoop blue
- 2) Colour the second scoop green
- 3) Colour the third scoop purple
- 4) Colour the first scoop yellow
- 5) Colour the eighth scoop pink
- 6) Colour the fourth scoop orange
- 7) Colour the tenth scoop red
- 8) Colour the sixth scoop black
- 9) Colour the ninth scoop grey
- 10) Leave the seventh scoop white



Finite vs Infinite Patterns

A **finite pattern** will end with the last number. A finite pattern has a last term. An **infinite pattern** has no ending and will continue forever or until an ending has been chosen. An infinite pattern has no last term. We use ... to show that the pattern continues.

Examples

Finite Pattern Countdown to the new year: 10, 9, 8, 7, 6, 5, 4, 3, 2, 1, 0

Infinite Pattern Money made at a job: 20, 40, 60, 80, 100, 120, 140...

Questions: Complete the pattern. Is it a finite or infinite pattern?

	Pattern	Pattern Type	
		Finite	Infinite
1)	1, 3, 5, 7, 9, <input type="text"/> , 13, <input type="text"/> , 19...	Finite	Infinite
2)	25, 21, 17, 13, <input type="text"/> , 5, <input type="text"/>	Finite	Infinite
3)	5, 15, 25, <input type="text"/> , 45, 55, <input type="text"/> , 75...		Infinite
4)	8, 15, 22, <input type="text"/> , 36, 43, <input type="text"/> , 57	Finite	Infinite
5)	150, 125, <input type="text"/> , 75, 50, 25, <input type="text"/>	Finite	Infinite
6)	50, 100, <input type="text"/> , 200, 250, <input type="text"/> , 350...	Finite	Infinite

Growing Patterns - Addition

Growing/Increasing Patterns

$$\begin{array}{cccccc} +10 & +10 & +10 & +10 & +10 & \\ \wedge & \wedge & \wedge & \wedge & \wedge & \\ 10, & 20, & 30, & 40, & 50, & 60 \end{array}$$

$$\begin{array}{ccccc} +5 & +5 & +5 & +5 & +5 \\ \wedge & \wedge & \wedge & \wedge & \wedge \\ 3, & 8, & 13, & 18, & 23, & 28 \end{array}$$


Part 1 Growing Patterns - Addition

1) $\begin{array}{cc} \wedge & \wedge \\ 2, & 4, & 6, \end{array}$ _____

2) $\begin{array}{cc} \wedge & \wedge \\ 6, & 10, & 14, \end{array}$ _____, _____, _____

3) $\begin{array}{cc} \wedge & \wedge \\ 10, & 15, & 20, \end{array}$ _____, _____, _____, _____, _____, _____

4) $\begin{array}{cc} \wedge & \wedge \\ 25, & 35, & 45, & 55, & 65, \end{array}$ _____, _____, _____, _____, _____

5) $\begin{array}{cc} \wedge & \wedge \\ 702, & 708, & 714, \end{array}$ _____, _____, _____

6) $\begin{array}{cc} \wedge & \wedge \\ 8, & 10, & 12, \end{array}$ _____, _____, _____, _____, _____

Part 2 Follow the rule by adding the next number in the

1) (Add 2)

7, 9, 11, _____, _____, _____

2) (Add 3)

22, 25, 28, _____, _____, _____

3) (Add 6)

32, 38, 44, _____, _____, _____

4) (Add 5)

115, 120, 125, _____, _____, _____

5) (Add 10)

604, 614, 624, _____, _____, _____

6) (Add 4)

942, 946, 950, _____, _____, _____

Increasing Patterns Rules – Adding To 100**Questions**

Fill in the blanks by figuring out the pattern rules

12, 15, 18, 21, 24, 27, 30

Start at _____, then add _____ each time

8, 53, 58, 63, 68, 73

Start at _____, then add _____ each time

21, 31, 41, 51, 61, 71, 81

Start at _____, then add _____ each time

37, 43, 49, 55, 61, 67, 73

Start at _____, then add _____ each time

54, 61, 68, 75, 82, 89, 96

Start at _____, then add _____ each time

40, 49, 58, 67, 76, 85, 94

Start at _____, then add _____ each time

Using Pattern Rules – Adding To 1000

Questions

Write your own patterns using the pattern rule

1) _____, _____, _____, _____, _____, _____

Pattern Rule: Start at 215, add 10 each time

2) _____, _____, _____, _____, _____

Pattern Rule: Start at _____, add 6 each time

3) _____, _____, _____, _____, _____

Pattern Rule: Start at 521, add _____ each time

4) _____, _____, _____, _____, _____

Pattern Rule: Start at 675, add 7 each time

5) _____, _____, _____, _____, _____

Pattern Rule: Start at 808, add 3 each time

Pattern Rule – Addition

Part 1

Continue the growing/increasing patterns below

1) 10, 20, 30, _____, _____, _____

Pattern Rule: Start at 10, add _____ each time

2) 2, 5, 8, _____, _____, _____

Pattern Rule: Start at _____ add _____ each time

3) 35, 55, _____, _____, _____

Pattern Rule: Start at _____ add _____ each time

4) 150, 160, 170, _____, _____, _____

Pattern Rule: Start at _____ add _____ each time

5) 673, 677, 681, _____, _____, _____

Pattern Rule: Start at _____ add _____ each time

Part 2

Write your own patterns using the pattern rule

1) _____, _____, _____, _____, _____, _____

Pattern Rule: Start at 20, add 5 each time

2) _____, _____, _____, _____, _____, _____

Pattern Rule: Start at 110, add 7 each time

3) _____, _____, _____, _____, _____, _____

Pattern Rule: Start at 27, add 5 each time

4) _____, _____, _____, _____, _____, _____

Pattern Rule: Start at 546, add 4 each time



Input/Output Table – Pattern Rules



Rule: add 5	
In	Out
3	8
16	21
23	28
42	47



Question: Complete the input/output tables below

In	Out
15	
20	
27	
32	

Rule: add 2	
In	Out
5	
14	
27	
3	

Rule: add 4	
In	Out
41	
53	
67	
78	

Rule: add 2	
In	Out
71	
79	
84	
91	

Rule: add 5	
In	Out
50	
65	
80	
95	

Rule: add 10	
In	Out
29	
41	
58	
72	

Patterning Word Problem - Earnings

Questions

Follow the problem-solving steps below

- | | | |
|---|--|--|
| <input type="checkbox"/> Read the problem carefully | <input type="checkbox"/> Underline important information | <input type="checkbox"/> Draw pictures |
| <input type="checkbox"/> Write a number sentence | <input type="checkbox"/> Solve the problem | <input type="checkbox"/> Check your answer |

Luna worked a week for 6 days. The first day she made \$25 and on the second day, she had \$50. After the third day she had \$75.

a) How much did she make each day for the 6 days of work?

b) How much did she make each day?



Patterning Word Problem – Growing Hair

Questions

Follow the problem-solving steps below

- | | | |
|---|--|--|
| <input type="checkbox"/> Read the problem carefully | <input type="checkbox"/> Underline important information | <input type="checkbox"/> Draw pictures |
| <input type="checkbox"/> Write a number sentence | <input type="checkbox"/> Solve the problem | <input type="checkbox"/> Check your answer |

Avery's hair was 150mm long in January. In February, her hair was 162mm long. In March, her hair was 174mm long.

a) How long will her hair be in April if the pattern continues?

b) How long will her hair be in July?



Patterning Word Problem - Snowfall

Questions

Follow the problem-solving steps below

- | | | |
|---|--|--|
| <input type="checkbox"/> Read the problem carefully | <input type="checkbox"/> Underline important information | <input type="checkbox"/> Draw pictures |
| <input type="checkbox"/> Write a number sentence | <input type="checkbox"/> Solve the problem | <input type="checkbox"/> Check your answer |

The snow fell outside Aidan's house. He records the height of the snow each hour. After the 1st hour, it was 200mm. After the 2nd hour, it was 250mm. After the 3rd hour it was 320mm.

- a) What will the height of the snow be after the 4th hour?



- b) What will the height of the snow be after the 7th hour?

Shrinking Patterns - Subtraction

Shrinking/Decreasing Patterns

-10 -10 -10 -10 -10
 $\wedge \wedge \wedge \wedge \wedge$
 60, 50, 40, 30, 20, 10

-5 -5 -5 -5 -5
 $\wedge \wedge \wedge \wedge \wedge$
 45, 40, 35, 30, 25, 20



Part 1

Fill in the missing numbers in the pattern

1) $\wedge \wedge$ 12, 10, 8, _____	2) $\wedge \wedge$ 23, 19, 15, _____
3) $\wedge \wedge$ 32, 26, 20, _____	4) $\wedge \wedge$ 175, 155, _____
5) $\wedge \wedge$ 156, 148, 140, _____	6) $\wedge \wedge$ 90, _____

Part 2

Follow the rule by adding the next number in the

1) (Subtract 2) 18, 16, 14, _____	2) (Subtract 3) 30, 27, 24, _____
3) (Subtract 5) 38, 33, 28, _____	4) (Subtract 100) 600, 500, 400, _____
5) (Subtract 6) 862, 856, 850, _____	6) (Subtract 4) 378, 374, 370, _____

Decreasing Patterns Rules – Subtracting (1)**Questions**

Fill in the blanks by figuring out the pattern rules

21, 18, 15, 12, 9, 6, 3, 0

Start at _____, then subtract _____ each time

59, 34, 29, 24, 19, 14

Start at _____, then subtract _____ each time

58, 54, 50, 46, 42, 38, 34

Start at _____, then subtract _____ each time

71, 65, 59, 53, 47, 41, 35

Start at _____, then subtract _____ each time

88, 80, 72, 64, 56, 48, 40

Start at _____, then subtract _____ each time

99, 92, 85, 78, 71, 64, 57

Start at _____, then subtract _____ each time

Using Pattern Rules – Subtraction (2)

Questions

Write your own patterns using the pattern rule

1) _____, _____, _____, _____, _____, _____

Pattern Rule: Start at 283, subtract 10 each time

2) _____, _____, _____, _____, _____, _____

Pattern Rule: Start at _____, subtract 6 each time

3) _____, _____, _____, _____, _____, _____

Pattern Rule: Start at 541, subtract _____ each time

4) _____, _____, _____, _____, _____, _____

Pattern Rule: Start at 758, subtract 7 each time

5) _____, _____, _____, _____, _____, _____

Pattern Rule: Start at 935, subtract 3 each time

Pattern Rule - Subtraction

Part 1

Continue the shrinking/decreasing patterns below

1) 12, 10, 8, _____, _____, _____

Pattern Rule: Start at 12, subtract _____ each time

2) 22, 19, _____, _____, _____

Pattern Rule: Start at _____ subtract _____ each time

3) 14, 10, 6, 2, _____, _____

Pattern Rule: Start at _____ subtract _____ each time

4) 74, 68, 62, _____, _____

Pattern Rule: Start at _____ subtract _____ each time

5) 133, 123, 113, _____, _____

Pattern Rule: Start at _____ subtract _____ each time

Part 2

Write your own patterns using the pattern rule

1) _____, _____, _____, _____, _____

Pattern Rule: Start at 50, subtract 0 each time

2) _____, _____, _____, _____, _____

Pattern Rule: Start at 236, subtract 6 each time

3) _____, _____, _____, _____, _____

Pattern Rule: Start at 794, subtract 5 each time

4) _____, _____, _____, _____, _____

Pattern Rule: Start at 142, subtract 4 each time

Input/Output Table – Subtraction



Rule: subtract 3	
In	Out
48	45
61	58
71	68
85	82



Question: Complete the input/output tables below

Rule: subtract 3	
In	Out
35	
45	
53	
66	

Rule: subtract 4	
In	Out
26	
38	
45	

Rule: subtract 3	
In	Out
12	
19	
26	
34	

Rule: subtract 5	
In	Out
55	
64	
71	
77	

Rule: subtract 7	
In	Out
61	
70	
79	
88	

Rule: subtract 8	
In	Out
63	
77	
86	
95	

Patterning Subtraction Word Problems – Spending**Questions**

Follow the problem-solving steps below

- | | | |
|---|--|--|
| <input type="checkbox"/> Read the problem carefully | <input type="checkbox"/> Underline important information | <input type="checkbox"/> Draw pictures |
| <input type="checkbox"/> Write a number sentence | <input type="checkbox"/> Solve the problem | <input type="checkbox"/> Check your answer |

Henry eats the same lunch every day for one week. After his first lunch, he has \$200. After his second lunch, he has \$172. After his third lunch, he has \$144.

a) How much money does Henry have left after his fourth lunch?



b) How much money will Henry have after his 7th lunch?



c) How much does each lunch cost?

Patterning Subtraction Word Problems – Running**Questions**

Follow the problem-solving steps below

- | | | |
|---|--|--|
| <input type="checkbox"/> Read the problem carefully | <input type="checkbox"/> Underline important information | <input type="checkbox"/> Draw pictures |
| <input type="checkbox"/> Write a number sentence | <input type="checkbox"/> Solve the problem | <input type="checkbox"/> Check your answer |

Riley runs a half marathon each day for 9 days. After her first day, she had 147km left that she needed to run. After the second day, she had 140km left. After the third day, she had 147km left.

a) How many km did she have left after the fourth day?

b) How many km did she have left after the 7th day?

c) How many km is a half marathon?

Activity Title: Pattern Treasure Hunt

Objective

What are we learning about?

To reinforce students' understanding of growing addition and shrinking subtraction patterns through a dynamic and engaging treasure hunt game. This activity aims to improve problem-solving speed and accuracy while promoting teamwork and active learning.

Materials

What you will need for the activity.

- Stopwatch or timer (or use a smartphone)
- Index cards
- Markers
- Small prizes or rewards (optional)
- Tape



Instructions

How you will complete the activity.

- 1) Cut out the index cards provided. These will contain the treasure hunt challenge questions.
- 2) Hide these cards around the classroom or in a designated safe outdoor area, taping them under chairs, desks, or tucked into non-obvious spots.
- 3) Divide the class into small teams and give each team a stopwatch.
- 4) Explain the game: each team will hunt for a card, solve the problem as quickly as they can, and return to you for verification.
- 5) Start the timer when you say "Go!" Each team rushes to find their first card.
- 6) When a team thinks they have the correct answer, they come back to you for verification. If they get it right, the teacher keeps the card. If the answer is wrong, they can try again or hide the card back in its original spot and find a new card.
- 7) The game continues until all cards are found or you call time. The team with the most correct answers wins.
- 8) Discuss the game, focusing on the concepts taught on the cards.

Instructions

Cut out the cards below

1) 3, 6, 9,
_____2) 10, 20, 30,
_____3) (Add 5) 5, 10, 15,
_____4) (Add 4) 28, 32, 36,
_____5) 100, 90, 80,
_____6) 100, 90, 80,
_____7) Pattern Rule: Start at 5, add
5 each time. 5, 10, 15,
_____8) Pattern Rule: Start at 200,
subtract 10 each time.
200, 190, 180,
_____**PREVIEW**

Instructions

Cut out the cards below

9) A printer uses 10 pages of paper less each day due to conservation efforts. If it used 100 pages on Monday, how many pages will it use on Thursday?

10) A bakery makes 200 cupcakes, and each day they make 50 more than the previous day. How many cupcakes do they make on the fourth day?

11) (Add 10) 0, 10, 20,

_____ / _____ / _____

12) (Subtract 5) 55, 50, 45,

13) Emma saves \$2 every day. How much will she have after 10 days if she starts with \$5?

14) If a car decreases its speed by 10 km/h every hour from 100 km/h, what is its speed after 3 hours?

15) 12, 24, 36,

_____ / _____ / _____

16) 300, 600, 900,

_____ / _____ / _____

Instructions

Cut out the cards below

17) Ben reads 2 more pages each day starting with 5 pages. What day will he read 15 pages?

18) Every week, Thomas saves \$5 more than the previous week. If he saved \$10 in the first week, how much will he have saved by the fourth week?

19) _____, _____, 20

20) 420, 440, 460, _____

21) Mike eats 3 more cookies each day, starting with 2 cookies. How many will he eat on the 5th day?

22) _____ each time:
_____ 27 _____

23) (Add 100) 1000, 1100, 1200, _____

24) (Subtract 20) 200, 180, 160, _____

Instructions

Cut out the cards below

25) Leah had \$50. She earns \$10 more each day. How much money will Leah have after 7 days?

26) Pattern Rule: Subtract 2 starting from 18.

_____, _____, _____

27) Sara planted 6 trees. Each year, the number of trees doubles. How many trees will there be in 3 years?

28) (Add 15) 30, 45, 60,

_____, _____, _____

29) Jake starts with 150 candies and eats 10 each day. How many candies are left after 8 days?

30) Ava starts at 10 and triples her score in each game. What will she have in the 3rd round?

31) Claire collects shells on the beach, doubling her total each day. If she starts with 6 shells on Monday, how many will she have by Wednesday?

32) A garden was planted with 50 flowers. Each day, 5 new flowers bloom. How many flowers will be in the garden after one week?

Input/Output Table - Multiplication



Rule: multiply by 2

In	Out
1	2
3	6
5	10
7	14

Questions: Complete the input/output tables below

Rule: multiply by 2

In	Out
2	
5	
10	
20	

Rule: multiply by 6

In	Out
2	
4	
6	
8	
10	

Rule: multiply by 4

In	Out
2	
4	
6	
8	

Rule: multiply by 3

In	Out
3	
6	
9	
10	

Rule: multiply by 5

In	Out
1	
3	
5	
7	

Rule: multiply by 10

In	Out
2	
5	
8	
10	

Name: _____

58

Activity: Finger Signals Quiz - Doubling Patterns

Objective

What are we learning about?

Students will understand and reinforce their knowledge of doubling patterns using multiplication.

Materials

What you will need for the activity.

- A list of questions



Instructions

How you will complete the activity

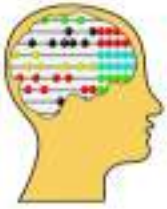
1. Prepare a list of questions with answer choices labeled A, B, C, and D.
2. Explain the finger signals for each answer choice: one finger for A, two fingers for B, three fingers for C, and four fingers for D.
3. Inform the students they will show their answer by raising the appropriate number of fingers when you read each question.
4. Read the first question aloud clearly and repeat if necessary.
5. Give students a few moments to think about their answer and decide independently.
6. After a countdown (e.g., "3, 2, 1"), have all students show their answer simultaneously by raising the appropriate number of fingers.
7. Reveal the correct answer and explain why it is correct.
8. Repeat with different questions to reinforce understanding of doubling patterns.

Name: _____

59

Question	A	B	C	D
Start with 6. What is the third number in the doubling pattern?	12	18	24	30
Which number comes next in the pattern: 2, 4, 8, ___?	10	12	14	16
Which pattern starts with 5 and follows a doubling sequence?	5, 10, 15	5, 10, 20	5, 15, 20	5, 10, 25
Start with 6. What is the fifth number in the doubling pattern?	12	24	36	48
If the pattern starts at 2, what will the third number be when doubling?	4	6	8	12
If the pattern starts at 7, what will the fourth number be if it is doubling each time?	14	28	35	42
What is the easiest way to find the next number in a doubling pattern?	Subtract	Divide	Multiply	Divide
Which number comes next in the pattern: 1, 2, 4, ___?	6	8	10	12
What is the second number in the doubling pattern starting with 5?	10	15	20	25
Which sequence is a doubling pattern starting with 3?	3, 6, 9	3, 6, 12	3, 9, 18	3, 9, 18
Start with 6. What is the third number in the doubling pattern?	12	18	24	30
Which number comes next in the pattern: 2, 4, 8, ___?	10	12	14	16
Start with 3. What is the fifth number in the doubling pattern?	12	24	36	48
If the pattern starts at 2, what will the third number be when doubling?	4	6	8	12

Growing Patterns



Growing/Increasing Patterns

Addition

$$+2 \ +2 \ +2 \ +2$$



$$2, 4, 6, 8, 10$$

Multiplication

$$\times 2 \ \times 2 \ \times 2 \ \times 2$$



$$2, 4, 8, 16, 32$$



Part 1

Growing Patterns - Addition

$$\wedge$$

 1) 5, 10, 15, _____, _____, _____

4) 10, 20, 30, _____, _____, _____

$$\begin{matrix} + & + \\ \wedge & \wedge \end{matrix}$$

 2) 3, 6, 9, _____, _____, _____

5) 10, 20, 30, _____, _____, _____

$$\begin{matrix} + & + \\ \wedge & \wedge \end{matrix}$$

 3) 2, 4, 6, _____, _____, _____

6) 4, 10, 5, _____, _____, _____

Part 2

Growing Patterns - Multiplication

$$\begin{matrix} \times & \times \\ \wedge & \wedge \end{matrix}$$

 1) 5, 10, 20, _____, _____, _____

4) 10, 20, 40, _____, _____, _____

$$\wedge \ \wedge$$

 2) 2, 4, 8, _____, _____, _____

5) 100, 200, 400, _____, _____, _____

$$\wedge \ \wedge$$

 3) 1, 3, 9, _____, _____, _____

6) 1, 5, 25, _____, _____, _____

Patterning Multiplication Word Problems – Reading**Questions**

Follow the problem-solving steps below

- | | | |
|---|--|--|
| <input type="checkbox"/> Read the problem carefully | <input type="checkbox"/> Underline important information | <input type="checkbox"/> Draw pictures |
| <input type="checkbox"/> Write a number sentence | <input type="checkbox"/> Solve the problem | <input type="checkbox"/> Check your answer |

Daniel read 1 page from his book on day one, 2 pages of his book on day two, 4 pages of his book on day three, and 8 pages of his book on day four.

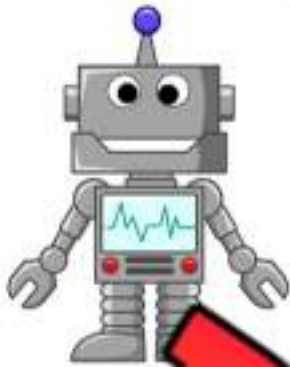
a) How many pages did he read on day 5?

b) How many pages did he read on day 7?

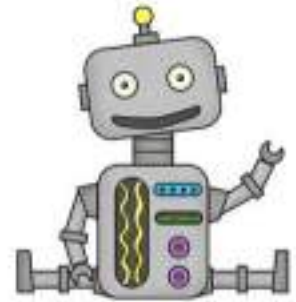
c) What is the pattern rule?



Input/Output Table – Division



Rule: divide by 2	
In	Out
10	5
8	4
6	3
4	2



Question: Complete the input/output tables below

Rule: divide by 1	
In	Out
1	
5	
10	
20	

Rule: divide by 2	
In	Out
6	
10	
4	
2	

Rule: divide by 3	
In	Out
6	
9	
12	
15	

Rule: divide by 4	
In	Out
4	
8	
16	
32	

Rule: divide by 5	
In	Out
10	
20	
40	
50	

Rule: divide by 10	
In	Out
10	
20	
50	
100	

Pattern Rule - Division

Part 1

Continue the shrinking/decreasing patterns below

1) 120, 60, 30, _____

Pattern Rule: Start at 120, divide by 2 each time

2) 10, 1 _____, _____, _____

Pattern Rule: Start at 10, divide by _____ each time

3) 243, 81, 27, _____

Pattern Rule: Start at _____, divide by _____ each time

4) 256, 64, 16, _____

Pattern Rule: Start at _____, divide by _____ each time

Part 2

Write your own patterns using the same rule

1) _____, _____, _____, _____

Pattern Rule: Start at 64, divide by 2 each time

2) _____, _____, _____, _____

Pattern Rule: Start at 150, divide by 1 each time

3) _____, _____, _____, _____

Pattern Rule: Start at 375, divide by 5 each time

4) _____, _____, _____, _____

Pattern Rule: Start at 1024, divide by 4 each time

Shrinking / Decreasing Patterns

Shrinking/Decreasing Patterns

Subtraction

-3 -3 -3 -3
 \wedge \wedge \wedge \wedge
 20, 17, 14, 11, 8

Division

+2 +2 +2
 \wedge \wedge \wedge
 80, 40, 20, 10

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Part 1 Shrinking Patterns - Subtraction

1) 10, 8, 6, _____

5) 100, 90, 80, _____, _____, _____

2) 20, 17, 14, _____, _____

4) 145, 140, _____, _____, _____

3) 30, 25, 20, _____, _____, _____

7) 129, _____, _____, _____

4) 174, 170, 166, _____, _____, _____

8) 158, 152, 148, _____, _____, _____

Part 2 Shrinking Patterns - Division

+2 +2 +2

 \wedge \wedge \wedge

1) 120, 60, 30, _____

÷3 ÷3 ÷3

 \wedge \wedge \wedge

3) 162, 54, 18, _____, _____

+2 +2 +2

 \wedge \wedge \wedge

2) 800, 400, 200, _____, _____

÷2 ÷2 ÷2

 \wedge \wedge \wedge

4) 160, 80, 40, _____, _____

Patterning Division Word Problems – Melting**Questions**

Follow the problem-solving steps below

- | | | |
|---|--|--|
| <input type="checkbox"/> Read the problem carefully | <input type="checkbox"/> Underline important information | <input type="checkbox"/> Draw pictures |
| <input type="checkbox"/> Write a number sentence | <input type="checkbox"/> Solve the problem | <input type="checkbox"/> Check your answer |

Lincoln tracked the amount of snow in his backyard. After a heavy snow there were 400mm of snow. On day 2, there was 320mm of snow. On day 3, there was 240mm of snow. On day 4, there was 160mm of snow. On day 5, there was 80mm of snow.

a) If the pattern continues, how much snow will be left on day 5?

b) How much snow will be left on day 6?

c) What is the pattern rule?



Pattern Rule – Input/Output Tables



Questions

Fill in the input/output tables below

Rule: Subtract 8	
In	Out
14	
2	
	58

Rule: Add 13	
In	Out
15	
20	
	62
	138

Rule: Multiply by 3	
In	Out
41	
87	
	121
	177

Rule: Multiply by 2	
In	Out
10	
20	
	80
	140

Rule: Divide by 2	
In	Out
20	
48	
	31
	42

Rule: Divide by 5	
In	Out
10	
20	
	5
	7

Rule: Multiply by 3	
In	Out
4	
10	
	15
	30

Rule: Divide by 3	
In	Out
15	
24	
	10
	15

Exit Cards

Cut Out

Cut out the exit cards below and have students complete them at the end of class

Name: _____

Fill in the input/output tables below

Rule: multiply by 3		Rule: divide by 4	
In	Out	In	Out
15		20	
25			12
	120		
	180		12

Name: _____

Fill in the input/output tables below

Rule: multiply by 3		Rule: divide by 4	
In	Out	In	Out
15		8	
25		20	
	120		8
	180		12

Name: _____

Fill in the input/output tables below

Rule: multiply by 3		Rule: divide by 4	
In	Out	In	Out
15		8	
25		20	
	120		8
	180		12

Name: _____

Fill in the input/output tables below

Rule: multiply by 3		Rule: divide by 4	
In	Out	In	Out
15		8	
25		20	
	120		8
	180		12

T-Tables – Finding Patterns

Questions

Fill in the T-Tables by counting the blocks




  	Figure 1	Figure 2	Figure 3		
				Figure	Term Value
				1	
				2	
				3	
				4	
				Figure	Term Value
				1	
				2	
				3	
				4	
				Figure	Term Value
				1	
				2	
				3	
				4	
				Figure	Term Value
				1	
				2	
				3	
				4	
				Figure	Term Value
				1	
				2	
				3	
				4	

Table of Values

Questions

Answer the questions below by using the table of values

When you work an hour, you get paid 10 dollars. Therefore, the input is the hours you work and the output is how much money you made. Fill in the input/output table.



1) How many dollars will you make if you work 5 hours?

2) How many dollars will you make if you worked 10 hours?

Hours Worked	Money Made
1	
2	
3	
4	
5	
10	

Kids	Slices of Pizza
1	
2	
3	
4	
5	
10	

You are having a birthday party for your family. You are expecting 5 kids coming to the party. Each kid will eat 2 slices of pizza.



1) How many slices of pizza does your family need to order?

2) What if 10 kids show up to the party? How many slices of pizza will you need?

You scored 5 points in each basketball game this season. Fill in the table of values showing your game scores.



1) After your third game, how many points had you scored?

2) There were 8 games this season. How many points did you score in the season?

Games	Total Points Scored
1	
2	
3	
4	
5	
8	

Multiplication Chart - Patterns

Instructions

Fill in the multiplication table below



x	1	2	3	4	5	6	7	8	9	10
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										

PREVIEW

Name: _____

76

Curriculum Connection
P.1

Multiplication Chart - Patterns



Questions

Fill in the multiplication table below

x	1	2	3	4	5	6	7	8	9	10
1	1	2		4		6		8		10
2					10	12		16	18	
3	3				15		21		27	
4	4		12	16			28			40
5		10	15	20					45	50
6	6			24		36				
7	7		21		35		49	56		70
8	8		24	32		48		64		80
9	9	18			45	54		72		90
10	10	20			50		70	80		

PREVIEW

Multiplication Chart - Patterns

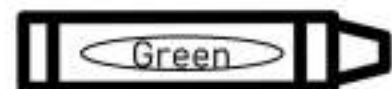
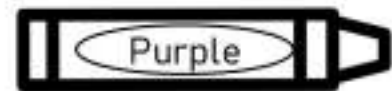
x	1	2	3	4	5	6	7	8	9	10
1	1	2	3	4	5	6	7	8	9	10
2	2	4	6	8	10	12	14	16	18	20
3	3	6	9	12	15	18	21	24	27	30
4	4	8	12	16	20	24	28	32	36	40
5	5	10	15	20	25	30	35	40	45	50
6	6	12	18	24	30	36	42	48	54	60
7	7	14	21	28	35	42	49	56	63	70
8	8	16	24	32	40	48	56	64	72	80
9	9	18	27	36	45	54	63	72	81	90
10	10	20	30	40	50	60	70	80	90	100

PREVIEW

Questions

Follow the instructions below

1. Count by 2's and colour the numbers
2. Count by 3's and colour the numbers
3. Count by 5's and colour the numbers
4. Count by 10's and colour the numbers



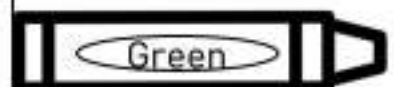
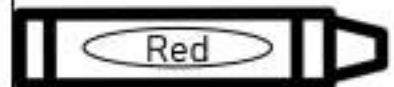
Multiplication Chart - Patterns

x	1	2	3	4	5	6	7	8	9	10
1	1	2	3	4	5	6	7	8	9	10
2	2	4	6	8	10	12	14	16	18	20
3	3	6	9	12	15	18	21	24	27	30
4	4	8	12	16	20	24	28	32	36	40
5	5	10	15	20	25	30	35	40	45	50
6	6	12	18	24	30	36	42	48	54	60
7	7	14	21	28	35	42	49	56	63	70
8	8	16	24	32	40	48	56	64	72	80
9	9	18	27	36	45	54	63	72	81	90
10	10	20	30	40	50	60	70	80	90	100

Questions

Answer the questions and colour the chart based on the answers

3×2	5×5	5×6	7×2
10×5	6×2	5×2	9×6
4×10	10×9	8×3	4×8
4×7	9×3	7×5	7×9



Patterning Quiz

Part 1

Fill in the input/output tables below

Rule: add 5	
In	Out
7	
16	
	28
	11

Rule: subtract 3	
In	Out
12	
	16
	23
47	

Rule: multiply by 6	
In	Out
	0
4	
	42
9	

Rule: divide by 4	
In	Out
20	
	7
3	
	10

Part 2

Follow the rule to extend the growing/shrinking patterns

1) (Add 5)

13, 18, 23, _____, _____, _____

2) (Add 7)

23, 30, 37, _____, _____, _____

3) (Subtract 6)

57, 51, 45, _____, _____, _____

4) (subtract 12)

82, 70, 58, _____, _____, _____

5) (Multiply by 2)

3, 6, 12, _____, _____, _____

6) (Divide by 2)

160, 80, 40, _____, _____, _____

Part 3

Follow the rule to extend the growing and shrinking patterns

1) (Add 5)

3, 8, 13, _____, _____, _____

2) (Add 3)

123, 126, 129, _____, _____, _____

3) (Add 6)

302, 308, _____, _____, _____

4) (subtract 2)

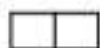
18, 16, 14, _____, _____, _____

5) (subtract 10)

660, 650, 640, _____, _____, _____

6) (subtract 4)

546, 542, 538, _____, _____, _____



7) Figure 1

Figure 2

Figure 3

Figure 4

Figure 5

Figure 6

Part 4

Solve the word problem below

Luca buys a coffee each day before work. On day one, he has \$220. On day two, he had \$214. On day 3, he had \$208.

a) How much money will he have on day 4?

b) How much money will he have on day 7?

c) What is the pattern rule?



Grade 3 Algebra



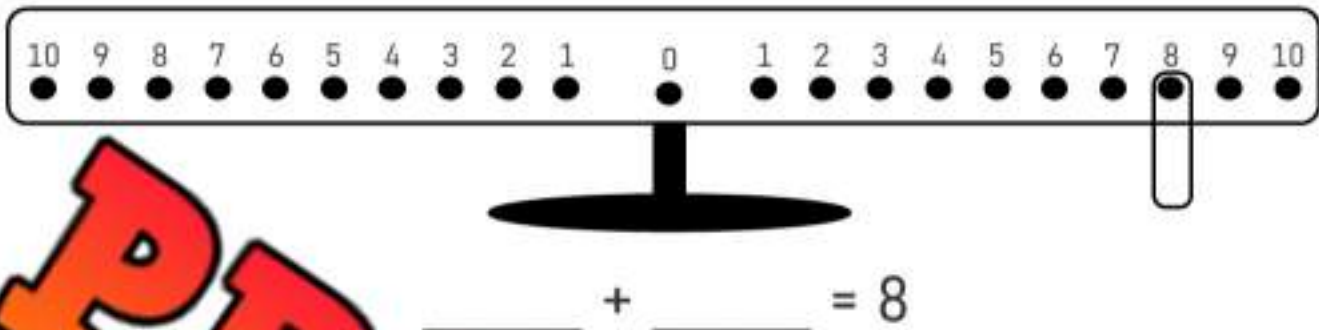
	Curriculum Expectations	Pages
A.1	<p>Students illustrate equality with equations.</p> <ul style="list-style-type: none">▪ Write equations that represent equality between a number and an expression or between two different expressions of the same number.▪ Model equations that include an unknown value, including with a balance.▪ Determine an unknown value on the left or right side of an equation, limited to equations with one operation.▪ Solve problems using equations, limited to equations with one operation.	83-141
TQ	Tests and Quizzes	142-143

Balance Pan Equations

Questions

How many ways can you balance the equation to equal 8

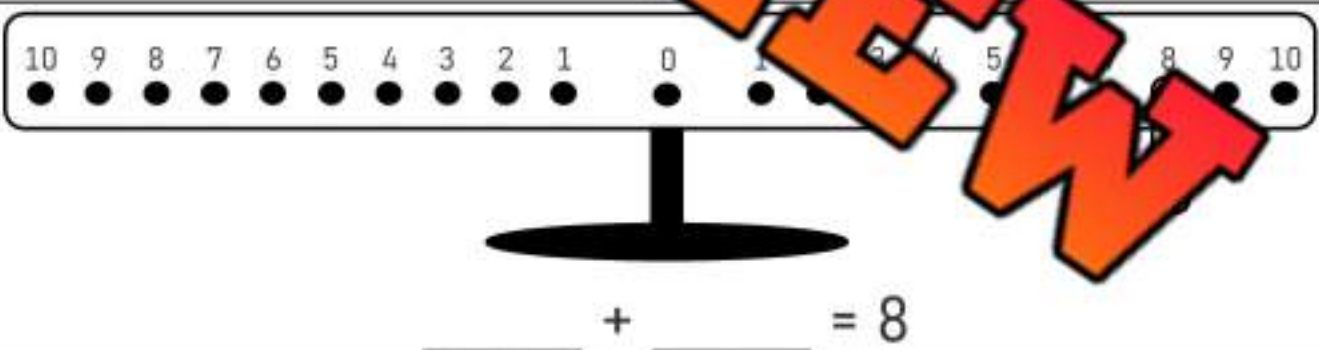
1)



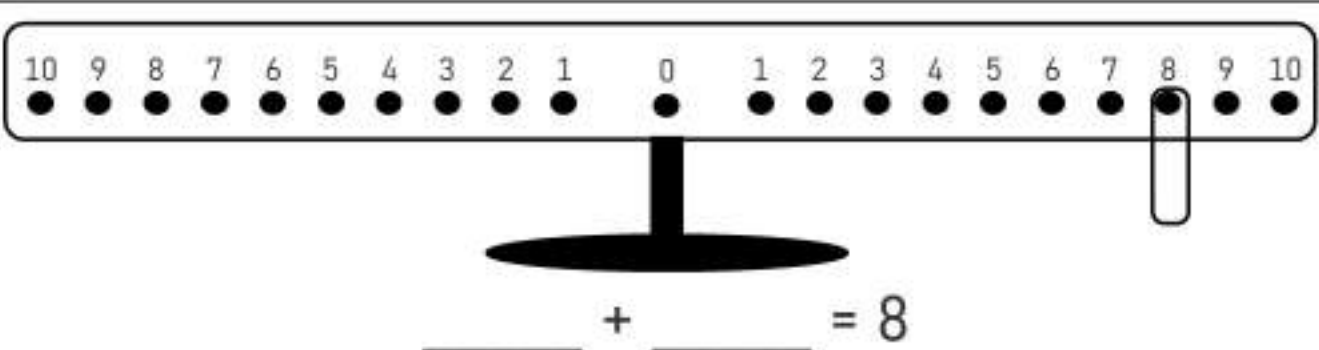
2)



3)



4)

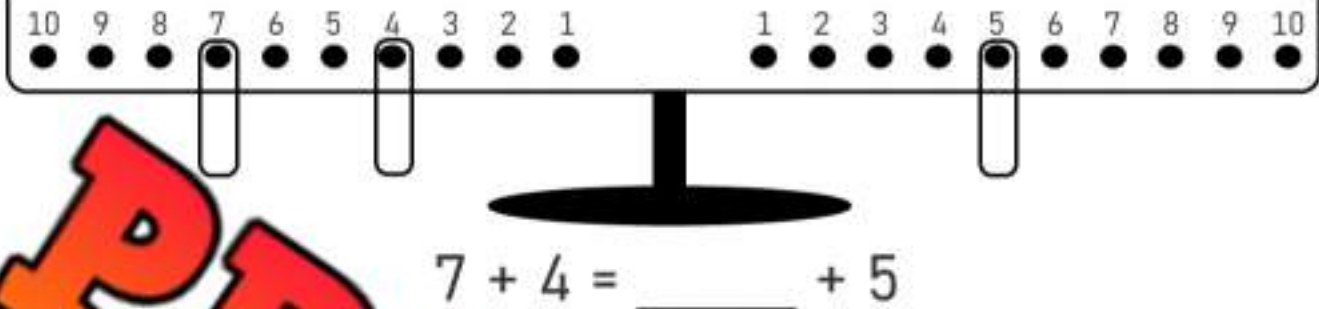


Balance Pan Equations

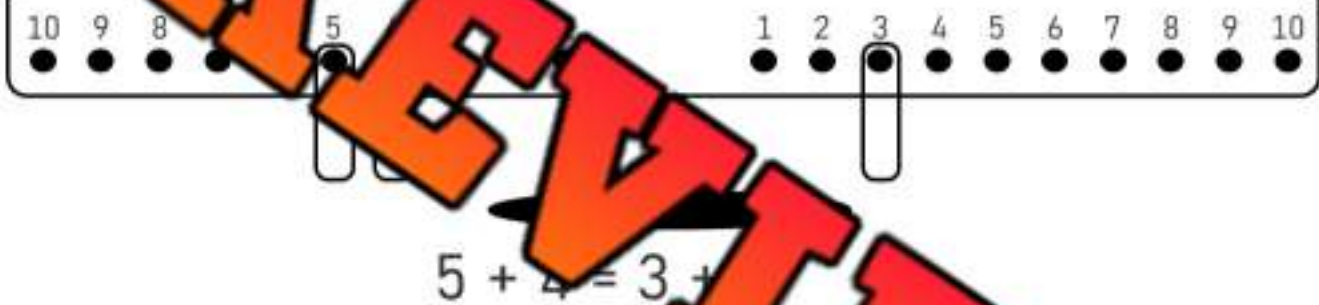
Questions

Balance the equations below

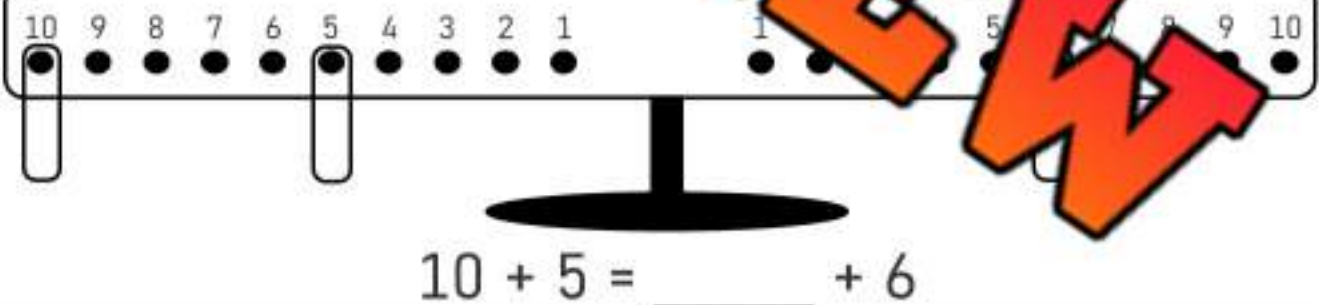
1)



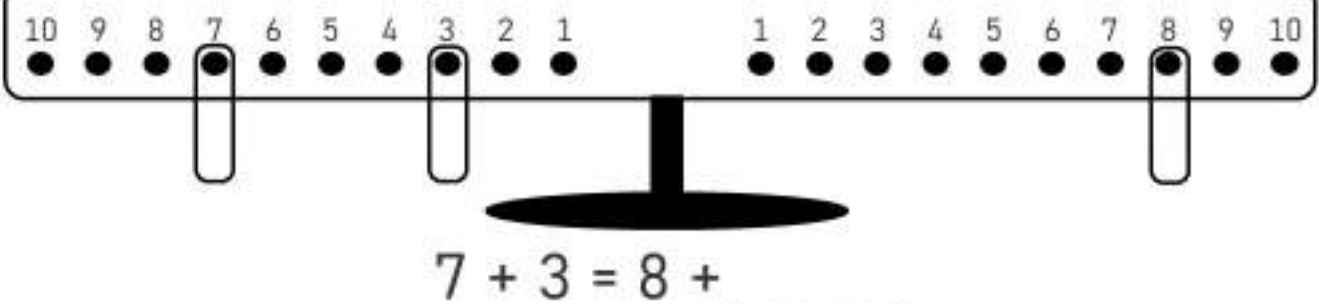
2)



3)



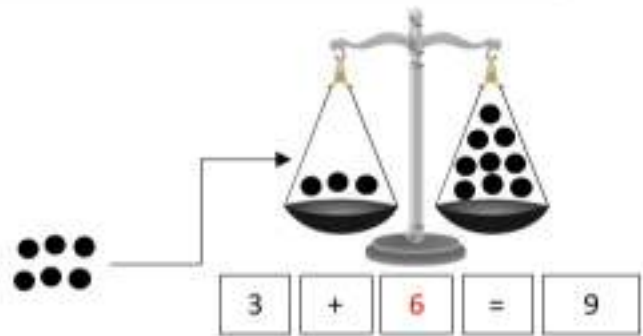
4)



Pre-Algebra – Balancing Addition Equations

Balance the scales by putting the same amount of circles on each scale

Answer: Add 6 circles to the scale to make them equal.



Question: How many balls do you need to add to balance the scales?



$$7 + \square = 11$$



$$5 + \square = 10$$



$$6 + \square = 14$$



$$6 + \square = 8$$



$$6 + \square = 13$$



$$2 + \square = 12$$



$$4 + \square = 10$$



$$3 + \square = 14$$



$$1 + \square = 12$$

Addition to 100 – Are They Equal?

Are the equations equal? Put a slash through the equal sign for any equations that are not equal

$15 + 7 = 22$

$28 + 4 \neq 33$

$44 + 6 = 50$



Questions Put a slash (\neq) through the equal sign if it is not balanced

1) $15 + 5 = 20$

2) $17 + 4 = 21$

3) $23 + 7 = 29$

4) $21 + 6 = 27$

5) $18 + 5 = 23$

6) $23 + 10 = 33$

7) $19 + 6 = 26$

8) $26 + 5 = 31$

9) $39 + 7 = 46$

10) $58 + 6 = 66$

11) $61 + 5 = 66$

12) $78 + 12 = 90$

13) $60 + 10 = 70$

14) $81 + 0 = 81$

15) $84 + 3 = 88$

16) $90 + 7 = 96$

17) $94 + 5 = 99$

18) $87 + 10 = 97$

Pre-Algebra – Result Unknown

Balancing equations means both sides of the equal sign must be the same.

Examples:

$$\begin{array}{c} 10 \\ \wedge \\ 3 + 7 = 10 \end{array}$$

$$\begin{array}{c} 30 \\ \wedge \\ 24 + 6 = 30 \end{array}$$

Questions Fill in the missing number to balance the equation

1) $15 + 8 =$ _____

2) $23 + 6 =$ _____

3) $7 + 6 =$ _____

4) $_____ + 7 =$ _____

5) $18 + 6 =$ _____

6) $_____ + 1 =$ _____

7) $36 + 12 =$ _____

8) $41 + 9 =$ _____

9) $63 + 13 =$ _____

10) $78 + 13 =$ _____

11) $88 + 14 =$ _____

12) $108 + 7 =$ _____

13) $136 + 12 =$ _____

14) $145 + 15 =$ _____

Pre-Algebra – Change Unknown

Balancing equations means both sides of the equal sign must be the same.

Examples:

$$\begin{array}{c} 10 \\ \wedge \\ 3 + 7 = 10 \end{array}$$

$$\begin{array}{c} 30 \\ \wedge \\ 22 + 8 = 30 \end{array}$$

Questions Fill in the missing number to balance the equation

1) $5 + \underline{\quad} = \quad$

2) $3 + \underline{\quad} = 7$

3) $7 + \underline{\quad} = 14$

5) $12 + \underline{\quad} = 17$

6) $\underline{\quad} + \quad = 22$

7) $18 + \underline{\quad} = 25$

8) $15 + \underline{\quad} = \quad$

9) $13 + \underline{\quad} = 18$

10) $17 + \underline{\quad} = 24$

11) $25 + \underline{\quad} = 32$

12) $31 + \underline{\quad} = 38$

13) $44 + \underline{\quad} = 51$

14) $53 + \underline{\quad} = 62$

Pre-Algebra – Start Unknown

Balancing equations means both sides of the equal sign must be the same.

Examples:

$$\begin{array}{c} 17 \\ \wedge \\ 10 + 7 = 17 \end{array}$$

$$\begin{array}{c} 30 \\ \wedge \\ 7 + 23 = 30 \end{array}$$

Questions

Fill in the missing number to balance the equation

1) _____ =

2) _____ + 2 = 8

3) _____ + 6 =

_____ + 5 = 7

5) _____ + 9 = 13

6) _____ = 13

7) _____ + 7 = 15

8) _____ +

9) _____ + 6 = 24

10) _____ + 5 = 28

11) _____ + 5 = 25

12) _____ + 7 = 32

13) _____ + 11 = 43

14) _____ + 13 = 48

Exit Cards

Cut Out

Cut out the exit cards below and have students complete them at the end of class

Name: _____

Fill in the missing number to balance the equation

- a) _____
- b) $38 + 21 = \underline{\hspace{1cm}} + 11$
- c) $45 + \underline{\hspace{1cm}} = 67$
- d) $\underline{\hspace{1cm}} + 4 = 35 + 20$

Name: _____

Fill in the missing number to balance the equation

- a) $14 + 26 = \underline{\hspace{1cm}}$
- b) $38 + 21 = \underline{\hspace{1cm}} + 11$
- c) $45 + \underline{\hspace{1cm}} = 67$
- d) $\underline{\hspace{1cm}} + 4 = 35 + 20$

Name: _____

Fill in the missing number to balance the equation

- a) $14 + 26 = \underline{\hspace{1cm}}$
- b) $38 + 21 = \underline{\hspace{1cm}} + 11$
- c) $45 + \underline{\hspace{1cm}} = 67$
- d) $\underline{\hspace{1cm}} + 4 = 35 + 20$

Name: _____

Fill in the missing number to balance the equation

- a) $14 + 26 = \underline{\hspace{1cm}}$
- b) $38 + 21 = \underline{\hspace{1cm}} + 11$
- c) $45 + \underline{\hspace{1cm}} = 67$
- d) $\underline{\hspace{1cm}} + 4 = 35 + 20$

Algebra Jeopardy

Objective

What are we learning about?

To reinforce students' understanding of basic algebraic concepts and their application to solve simple equations and word problems in a fun and competitive game format.

Materials

What materials will need for the activity.

- Jeopardy board and questions
- Buzzer or bell



Instructions

How you will complete the activity.

1. Print the Jeopardy board on the next page.
2. Divide the class into two teams.
3. Ask one team to go first by selecting a dollar value.
4. Read the question aloud from the dollar value.
5. The first team to ring the bell or buzzer gets to answer.
6. If they answer correctly, award them the points. If not, another team can answer.
7. Continue the game until all questions have been answered.
8. Tally the points to determine the winning team.
9. Conclude by discussing what they learned about the topic in the questions.

Name: _____

95

Jeopardy Questions

Ask students the questions below

\$100	\$200	\$300	\$400	\$500
$__ + 3 = 5$	$__ + 7 = 20$	$10 + __ = 45$	$20 + __ + 15 = 68$	$3 + __ = 7 + 5$
$__ + 15 = __$	$__ + 12 = 29$	$18 + __ = 53$	$25 + 18 + __ = 100$	$__ + 18 = 50 + 13$
$7 + __ = 10$	$__ + __ = 15$	$__ + __ = 65$	$32 + 25 + __ = 95$	$4 + __ = 11 + 9$
$__ + 6 = 9$	$__ + 20 = 4$	$__ + __ = 5$	$__ + 22 + __ = 58$	$29 + __ = 12 + 47$
Sam has 6 marbles and finds 11 more. How many does he have now?	Lisa had \$21 and earned \$10 more. Total money?	Max had 30 pencils, he bought 26 more. How many total pencils does he have now?	A bird had 45 worms and bought 23 more. How many worms does it have now?	A farmer had 62 chickens and bought 9 more. How many chickens does he have now?
If Alex has 12 apples and buys 12 more, how many does he have?	Jane had 24 candies and found 13 more. How many does she now have in total?	Tom read 33 pages, then read 22 more. How many total pages did he read?	Lily collected 41 seashells, then 23 more. How many total does she have now?	If a baker baked 68 pies and then baked 24 more, how many pies are there?

Addition Expressions – Equal?

Are the expressions equal? Put a slash through the equal sign for any equations that are not equal



Examples: $5 + 3 = 2 + 6$ $4 + 5 \neq 7 + 1$

Questions Put a slash (\neq) through the equal sign if it is not balanced

1) $12 + 11 = 17$	7) $16 + 7 = 11 + 11$
2) $27 + 3 = 15$	8) $26 + 5 = 24 + 7$
3) $38 + 10 = 42 + 7$	9) $3 + 1 = 42 + 8$
4) $67 + 7 = 65 + 9$	10) $40 + 30 = 17$
5) $51 + 5 = 11 + 45$	11) $66 + 13 = 4 + 75$
6) $83 + 4 = 70 + 16$	12) $60 + 23 = 53 + 30$

Addition – Which Equation Matches?

Two of the equations equal the same number. Which one matches the shaded in equation.

Example:

$4 + 7$

$9 + 2$

$5 + 5$



Questions Circle the equation that matches the shaded in equation

1)	$25 + 7$	$16 + 12$	$24 + 5$
----	----------	-----------	----------

2)	$46 + 6$	$40 + 7$	$44 + 3$
----	----------	----------	----------

3)	$52 + 14$	$57 + 18$	$61 + 5$
----	-----------	-----------	----------

4)	$63 + 12$	$45 + 35$	
----	-----------	-----------	--

5)	$82 + 12$	$70 + 24$	$55 + 40$
----	-----------	-----------	-----------

6)	$68 + 13$	$75 + 7$	$61 + 20$
----	-----------	----------	-----------

7)	$53 + 22$	$40 + 35$	$55 + 21$
----	-----------	-----------	-----------

Addition – Using Symbols

When we do not know the value of an addend in a question, we can use any symbol to replace the unknown.



Part 1

Find out the value of the symbol

1) $35 + \square = 70$ $\square =$	2) $17 + \text{yellow circle} = 24$ $\text{yellow circle} =$	3) $\text{blue circle} + 42 = 55$ $\text{blue circle} =$
4) $27 + \text{blue diamond} = 47$ $\text{blue diamond} =$	5) $11 + \text{green circle} = 16$ $\text{green circle} =$	6) $65 + \text{red circle} = 75$ $\text{red circle} =$
7) $\text{orange diamond} + 88 = 98$ $\text{orange diamond} =$	8) $51 + \text{blue diamond} = 62$ $\text{blue diamond} =$	9) $\text{orange circle} + 72 = 81$ $\text{orange circle} =$

Part 2

Write your own questions using any symbol you want and to answer.

1)

2)

Using Variables to Solve Addition Equations

There are some instances where we know the values of variables and need to plug them into an equation. For example:

$$a + b + c = ?$$

$$5 + 3 + 7 = 15$$

$a = 5$

$b = 3$

$c = 7$



Questions Find out the value of the variable

$a + b + c = 8 \quad c = 2$

$_____ + _____ + _____ = _____$

$n + y + t = \quad n = 5 \quad y = 10 \quad t = 5$

$_____ + _____ + _____ = _____$

$c + r + p = \quad c = 4 \quad r = 12$

$_____ + _____ + _____ = _____$

$g + h + k = \quad g = 8 \quad h = 4 \quad k = 8$

$_____ + _____ = _____$

$e + c + g = \quad e = 13 \quad c = 7 \quad g = 10$

$_____ + _____ + _____ = _____$

$a + b + c = \quad a = 5 \quad b = 8 \quad c = 3$

$_____ + _____ = _____$

$a + b + c = \quad a = 5 \quad b = 12 \quad c = 12$

$_____ + _____ + _____ = _____$

$n + y + t = \quad n = 7 \quad y = 5$

$_____ + _____ + _____ = _____$

$c + r + p = \quad c = 4 \quad r = 8 \quad p = 21$

$_____ + _____ + _____ = _____$

$g + h + k = \quad g = 8 \quad h = 10 \quad k = 10$

$_____ + _____ + _____ = _____$

$e + c + g = \quad e = 13 \quad c = 15 \quad g = 10$

$_____ + _____ + _____ = _____$

$a + b + c = \quad a = 5 \quad b = 15 \quad c = 20$

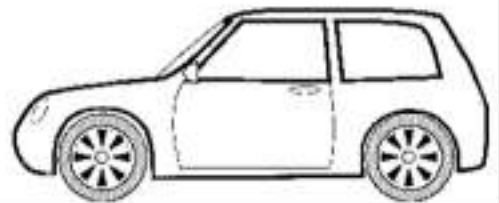
$_____ + _____ + _____ = _____$

Word Problems – Solving Addition Equations

Questions

Answer the questions below

1) Tim drove 31km to get to work. Then he drove to the store. When he got to the store, he had driven 58 km in total. How many km did he drive to the store?



2) Steve got 25 points for beating level 1 in a video game. He got 33 more points for beating level 2. How many points did he have after level 2?



Bonus – He had 78 total points after beating level 3. How many points did he get in level 3?

3. In badminton, Jessica and Erin won their game. They scored 21 points and their opponents only scored 16. Jessica scored 13 of the 21 points. How many points did Erin score?



Pre-Algebra – Balancing Subtraction Equations

Balance the scales by taking away circles from the scale

Answer: take 4 circles from the scale to make them equal.



$$7 - 4 = 3$$

Question: How many balls do you need to take away to balance the scales?



$$11 - \square = 8$$



$$8 - \square = 4$$



$$10 - \square = 4$$



$$9 - \square = 1$$



$$11 - \square = 4$$



$$13 - \square = 3$$



$$11 - \square = 4$$



$$14 - \square = 2$$



$$6 - \square = 0$$

Activity Title: Balancing Act**Objective**

What are we learning about?

This activity is designed to help students understand the concept of equality and balance in addition and subtraction equations using a physical balance scale. Students will explore how different weights can represent numbers and discover combinations that balance the scale.

Materials

What you will need for the activity.

- Small balls or objects
- A set of weights of different weights. A minimum of 25 grams
- Paper
- Pencils
- Set of pre-written addition and subtraction problems

**Instructions**

How you will complete the activity.

1. Give a balance scale and weights to small groups of students.
2. Provide the students with the set of equations on the next page.
3. Students must use the weights to represent the numbers in each equation and place them on the balance scale to see how they balance. For the subtraction questions, students will put on the first quantity, and then remove the quantities in the equations. For addition, they can put the addends in separate areas on the same side of the balance scale.
4. As an extension, students could create their own equations that represent a sum or difference that you provide them with.
5. Review each group's findings with the class, discussing why the particular combinations resulted in a balanced scale.

Equations

Pre-written addition and subtraction problems

$$3 + 2 = 5$$

$$11 - 4 = 7$$

$$4 + 2 = 3 + 3$$

$$5 + 4 = 7 + 2$$

$$10 + 15 = 4$$

$$8 - 4 - 2 = 2$$

$$19 - 7 - 8 = 8 - 2 - 2$$

$$7 + 2 + 1 = 9 + 1$$

$$6 + 1 + 3 = 4 + 2 + 4$$

Subtraction to 50 – Are They Equal?

Are the equations equal? Put a slash through the equal sign for any equations that are not equal

$14 - 3 = 11$

$22 - 3 \neq 18$

$36 - 5 = 31$

Questions Put a slash \neq through the equal sign if it is not balanced

1) $13 - 2 = 11$

2) $24 - 4 = 20$

3) $15 - 4 = 10$

4) $16 - 3 = 12$

5)

6) $18 - 3 = 14$

7) $22 - 5 = 17$

8) $26 - 6 = 20$

9) $3 - 3 = 20$

10) $28 - 5 = 23$

11) $31 - 3 = 27$

12) $30 - 0 = 30$

13) $36 - 5 = 31$

14) $39 - 4 = 34$

15) $37 - 4 = 33$

16) $44 - 0 = 44$

17) $46 - 6 = 41$

18) $50 - 5 = 45$

Subtraction – Are They Equal?

Are the equations equal? Put a slash through the equal sign for any equations that are not equal

$7 - 2 = 5$

$25 - 6 \neq 18$

$15 - 11 = 4$

Questions

Put an x through the equal sign if it is not balanced

1) $6 - 5 = 1$	2) $10 - 4 = 6$	3) $16 - 5 = 12$
4) $23 - 6 = 16$	5) $20 - 4 = 16$	6) $19 - 3 = 16$
7) $32 - 4 = 28$	8) $23 - 3 = 20$	9) $28 - 4 = 24$
10) $43 - 10 = 33$	11) $45 - 4 = 42$	12) $45 - 4 = 41$
13) $53 - 4 = 49$	14) $68 - 4 = 65$	15) $56 - 6 = 51$
16) $75 - 0 = 75$	17) $100 - 1 = 99$	18) $116 - 5 = 111$
19) $109 - 4 = 104$	20) $127 - 6 = 121$	21) $175 - 6 = 159$

Exit Cards

Cut Out

Cut out the exit cards below and have students complete them at the end of class

Name: _____

Put a slash through the equal sign if the equation is not balanced

- a) $76 - 5 = 7$
- b) $92 - 4 = 88$
- c) $90 - 4 = 100 - 14$
- d) $35 - 1 = 80 - 36$

Name: _____

Put a slash through the equal sign if the equation is not balanced

- a) $76 - 5 = 78$
- b) $92 - 4 = 88$
- c) $90 - 4 = 100 - 14$
- d) $35 - 1 = 80 - 36$

Name: _____

Put a slash through the equal sign if the equation is not balanced

- a) $76 - 5 = 78$
- b) $92 - 4 = 88$
- c) $90 - 4 = 100 - 14$
- d) $35 - 1 = 80 - 36$

Name: _____

Put a slash through the equal sign if the equation is not balanced

- a) $76 - 5 = 78$
- b) $92 - 4 = 88$
- c) $90 - 4 = 100 - 14$
- d) $35 - 1 = 80 - 36$

Pre-Algebra – Change Unknown

Balancing equations means both sides of the equal sign must be the same.

Examples:

$$\begin{array}{c} 6 \\ \wedge \\ 13 - 7 = 6 \end{array}$$

$$\begin{array}{c} 14 \\ \wedge \\ 22 - 8 = 14 \end{array}$$

Question: Find the missing number to balance the equation

1) $9 - \underline{\hspace{2cm}} = 4$

2) $8 - \underline{\hspace{2cm}} = 4$

3) $10 - \underline{\hspace{2cm}} = 3$

4) $1 \underline{\hspace{2cm}} = 7$

5) $13 - \underline{\hspace{2cm}} = 6$

6) $18 \underline{\hspace{2cm}} 11$

7) $21 - \underline{\hspace{2cm}} = 15$

8) $24 - \underline{\hspace{2cm}} = 9$

9) $26 - \underline{\hspace{2cm}} = 19$

10) $32 - \underline{\hspace{2cm}} = 28$

11) $36 - \underline{\hspace{2cm}} = 29$

12) $48 - \underline{\hspace{2cm}} = 38$

13) $59 - \underline{\hspace{2cm}} = 51$

14) $75 - \underline{\hspace{2cm}} = 62$

Pre-Algebra – Start Unknown

Balancing equations means both sides of the equal sign must be the same.

Examples:

$$\begin{array}{c} 10 \\ \wedge \\ 17 - 7 = 10 \end{array}$$

$$\begin{array}{c} 7 \\ \wedge \\ 30 - 23 = 7 \end{array}$$

Question: Find the missing number to balance the equation

1) _____ - _____ = _____

2) _____ - 4 = 7

3) _____ - 5 = 10

4) _____ - 3 = 8

5) _____ - 7 = 13

6) _____ - 6 = 2

7) _____ - 4 = 15

8) _____ - 5 = _____

9) _____ - 6 = 24

10) _____ - 5 = 25

11) _____ - 8 = 25

12) _____ - 9 = 40

13) _____ - 12 = 43

14) _____ - 13 = 62

Activity Title: Card Sort Challenge

Objective

What are we learning about?

The objective of this activity is to help students practice their addition and subtraction skills by forming correct equations that match a given result. This activity encourages teamwork, critical thinking, and quick problem-solving.

Material

What you will need for the activity.

- Index cards
- Markers
- Timer (optional)
- Whiteboard or chalkboard (for writing results)



Instructions

How you will complete the activity.

1. Prepare index cards in advance by writing different numbers on some cards and operation signs (plus and minus) on others.
2. Divide the class into small groups, each group given a set of number cards and operation cards. Optional: hand out more than 1 set to each group.
3. Write a target number on the board that each group needs to reach using the cards provided.
4. Set a timer for 5 minutes. Each group must try to arrange their cards into as many correct equations as possible that equal the target number.
5. At the end of the timer, ask each group to share their equations with the class. Verify the correctness of each equation.
6. Groups earn points for each correct equation they create. Bonus points if they use all their cards.
7. The group with the most points at the end wins.

Name: _____

Index Cards

Cut out the index cards below

0

1

2

3

4

6

7

8

9

+

+

-

+

-

PREVIEW

Reflection

Answer the questions below.

1) How did working in a group help you solve the problem?

2) What was the most challenging part of this activity?

3) How could you improve your work if you were to do this activity again?

4) What strategies did you use to decide which operation to use for your equations?

5) What did you learn about addition and subtraction from this activity?

PREVIEW

Subtraction Expressions – Equal?

Are the expressions equal? Put a slash through the equal sign for any equations that are not equal

Examples: $8 - 5 = 9 - 6$ $10 - 5 \neq 7 - 1$

Questions Put a slash (\neq) through the equal sign if it is not balanced

1) $15 - 17$

7) $25 - 3 = 26 - 3$

2) $37 - 5 = 38 - 6$

8) $27 - 5 = 28 - 6$

3) $58 - 11 = 55 - 7$

9) 13

4) $70 - 7 = 80 - 17$

10) $39 - 14 = 40 - 15$

5) $78 - 5 = 82 - 8$

11) $86 - 5 = 94 - 13$

6) $95 - 15 = 100 - 18$

12) $100 - 12 = 95 - 7$

Subtraction – Which Equation Matches?

Two of the equations equal the same number. Which one matches the shaded in equation.

Example:

$9 - 4$

$8 - 3$

$10 - 6$



Question _____ the equation that matches the shaded in equation

1)

$24 - 13$

$27 - 15$

2)

$28 - 14$

$27 - 13$

3)

$30 - 12$

$39 - 12$

$39 - 21$

4)

$47 - 12$

$46 - 11$

5)

$62 - 13$

$61 - 12$

$63 - 15$

6)

$85 - 15$

$90 - 15$

$90 - 20$

7)

$99 - 15$

$98 - 13$

$90 - 6$

Matching Game: Do The Equations Match

Objective

What are we learning about?

To enhance students' understanding of equality within addition and subtraction equations. Students will identify and match pairs of equations that yield the same result, fostering critical thinking and problem-solving skills in a collaborative group setting.

Materials

What will you need for the activity.

- Pre-prepared pre-made equation cards.
- Small bags or envelopes to hold the cards for each group.

Instructions

How you will complete the activity.

1. Before the class, the teacher will cut out the prepared matching game cards.
2. Divide the students into small groups and give each group a small envelope containing a set of the matching cards.
3. In their groups, students will spread out the cards face down on their table.
4. Each person takes a turn to try to match two cards. They will need to solve both equations to see if they match (equal the same).
5. If they find a correct match, they keep the cards out and continue with their next turn. If the cards don't match, they turn them back over in the same place, and the next player takes a turn.
6. The activity continues until all pairs are correctly matched within each group.



Cards

Matching Game Cards

$10 + 15$

$20 + 5$

$18 + 22$

$25 - 5$

$50 - 25$

$45 - 20$

$11 + 13$

$19 + 5$

PREVIEW

Cards

Matching Game Cards

$45 - 15$

$35 - 5$

$20 + 19$

$60 - 20$

$45 - 10$

$14 + 25$

$27 + 12$

$100 - 30$

$85 - 15$

PREVIEW

Name: _____

123

Curriculum Connection
A.1

Cards

Matching Game Cards

$19 + 18$

$30 + 7$

$68 - 3$

$42 + 18$

$75 + 5$

$90 - 45$

$75 - 3$

$64 + 18$

$73 + 9$

PREVIEW

Subtraction – Using Symbols

**Part 1**

Find out the value of the symbol

1) $\bullet - 10 = 18$ $\bullet =$	2) $42 - \blacktriangle = 30$ $=$	3) $80 - \bullet = 65$ $\bullet =$
4) $\blacktriangle = 12$ $\blacktriangle =$	5) $\blacklozenge - 11 = 29$ $=$	6) $90 - 70 = \blacklozenge$ $=$
7) $54 - \blacktriangle = 50$ $\blacktriangle =$	8) $\bullet - \bullet =$ $\bullet =$	9) $78 - \bullet = 64$ $\bullet =$

Part 2

Write your own questions using any symbols you want. Then get a friend to answer.

1)	2)
3)	4)

Word Problems – Solving Subtraction Equations

Questions

Answer the questions below

1) Mrs. Wilson had 48 pencils at the start of the school year. She gave all the kids in her class 1 pencil. She now has 28 pencils. How many students are in Mrs. Wilson's class?



2) Hudson saved 86 dollars and bought a toy for 35 dollars. How many dollars does he have left?



Bonus: He saved 15 more dollars. Can he buy a new _____ dollars?

3) The grade 3 class planted 79 tomato seeds but only 57 tomato plants grew. How many plants did not grow?



Task Cards: Mystery Number Detectives

Objective

What are we learning about?

To help students understand and solve one-step algebraic equations by finding the value of a missing number.

Materials

What you will need for the activity.

- 2 sets of task cards
- Separate sheets for answers
- Pencils



Instructions

How do we complete the activity?

1. Introduce the concepts covered in the task cards.
2. Organize the students into pairs and provide each pair with their sets of task cards.
3. Give each pair an answer recording sheet to document their answers.
4. Encourage teamwork by having students collaborate on their problem-solving process.
5. Allow students to select any task card to begin with, emphasizing that they can complete the cards in any order they prefer.
6. Instruct students to record the letter of their chosen answer (A, B, or C) on their answer sheet beside the task card's number.
7. Consider using a timer to create a dynamic challenge, adjusting the duration to fit the lesson's objectives and complexity.
8. After the activity, review the answers collectively, discussing any challenging questions and strategies used to solve them.
9. Have students reflect on the activity, sharing the methods they applied and obstacles they overcame.

Task Cards

Cut out the task cards below

Card 1:

$$14 - p = 10$$

solve for p

- a) 1 b) 4 c) 5

Card 2:

$$80 - \bullet = 65$$

solve for \bullet

- a) 15 b) 25 c) 35

$$11 - \underline{\quad}$$

- a) 4 b) 2

Card 4:

$$x + 45 = 76$$

solve for x

- a) 31 b) 31 c) 41

Card 5:

$$31 + y = 58$$

solve for y

- a) 17 b) 27 c) 37

solve for z

- a) 33 b) 23 c) 43

Card 7:

$$18 - a = 9$$

solve for a

- a) 9 b) 7 c) 11

Card 8:

$$b + 16 = 24$$

solve for b.

- a) 8 b) 18 c) 28

Task Cards

Cut out the task cards below

Card 9:

$$7 + c = 14$$

solve for c

- a) 7 b) 9 c) 5

Card 10:

$$34 - d = 25$$

solve for d

- a) 9 b) 19 c) 29

Card 12:

Leah had 21 pencils. She lost y pencils and now has 7. How many did she lose?

- a) 14 b) 12 c) 14

Card 13:

A tree was 9m tall. It grew e meters and is now 43m tall. How much did it grow?

- a) 33m b) 31m c) 34m

Card 15:

$$50 - g = 15$$

solve for g

- a) 35 b) 45 c) 25

Card 16:

$$27 + h = 35$$

solve for h

- a) 8 b) 18 c) 28

Task Cards

Cut out the task cards below

Card 17:

$$j - 9 = 10$$

solve for j

- a) 1 b) 1 c) 9

Card 18:

$$42 + k = 59$$

solve for k

- a) 17 b) 7 c) 27

$$m + 4 = 30$$

solve for m

- a) 53 b) 13 c) 43

Card 20:

$$64 + n = 88$$

solve for n

- a) 4 b) 14 c) 34

Card 21:

Paula baked 56 cookies. She ate 14 cookies and now has 42. How many did she eat?

- a) 17 b) 12 c) 14

Card 22:

There are 4 birds in a tree. 17 more birds flew away. How many birds are left?

- a) 17 b) 19 c) 21

Card 23:

$$q + 12 = 29$$

solve for q

- a) 17 b) 27 c) 7

Card 24:

$$36 - r = 15$$

solve for r

- a) 21 b) 31 c) 11

Name: _____

133

Task Cards: Mystery Number Detectives

Answers

Record your answers below

1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	

13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	

PREVIEW

Multiplication – Are They Equal?

Are the equations equal? Put a slash through the equal sign for any equations that are not equal.

$2 \times 2 \neq 5$

$3 \times 3 = 9$

$5 \times 2 \neq 11$

InstructPut a slash (\neq) through the equal sign if it is not balanced

1) $2 \times 2 = 5$	2) $10 \times 3 = 30$	3) $2 \times 3 = 5$
4) $5 \times 5 = 25$	5) $8 \times 8 = 64$	6) $3 \times 5 = 16$
7) $10 \times 2 = 12$	8) $10 \times 5 = 50$	9) $5 \times 4 = 20$
10) $10 \times 10 = 90$	11) $2 \times 7 = 14$	
13) $10 \times 4 = 40$	14) $5 \times 1 = 10$	15) $10 \times 6 = 16$
16) $2 \times 10 = 20$	17) $5 \times 8 = 40$	18) $3 \times 10 = 30$
19) $2 \times 7 = 14$	20) $7 \times 5 = 30$	21) $10 \times 4 = 40$

Pre-Algebra – Balancing Multiplication Equations

Balancing equations means both sides of the equal sign must be the same.

$$\begin{array}{c} 15 \\ \swarrow \quad \searrow \\ 5 \times 3 = 15 \end{array}$$

Examples:

$$\begin{array}{c} 6 \\ \swarrow \quad \searrow \\ 2 \times 3 = 6 \end{array}$$

Question

Fill in the missing number to balance the equation

1)

=

2) $10 \times 3 =$

3) $10 \times$

=

4) $3 \times$

= 6

5)

$\times 5 = 25$

6)

= 45

7) $5 \times 10 =$

8) $2 \times$

= 20

9) $5 \times$

= 20

10) $10 \times 10 =$

11) $2 \times$

= 8

12) $3 \times 2 =$

13) $10 \times$

= 60

14) $2 \times 9 =$

Multiplication – Which Equation Matches?

Two of the equations equal the same number. Which one matches the shaded in equation

Example:

2×3

1×6

4×2



Question _____ the equation that matches the shaded in equation

1)

10×1

6×2

2)

6×3

2×9

3)

5×4

10

6×3

4)

8×2

4×4

5)

9×4

7×5

6×6

6)

10×3

7×5

6×5

7)

8×3

6×4

7×3

Multiplication Word Problems**Questions**

Answer the questions below

1) Claire has 7 boxes of cookies. She has 56 cookies in total. How many cookies are in each box?



2) Sam is a truck driver. He drove 100 km per hour. In total, he drove 800 km yesterday. How many hours did he drive?



3) Courtney scored 3 goals in each game she played. She scored 27 goals in total. How many games did she play?



4) Steven earned \$8 every hour he worked. He made \$48 today. How many hours did he work?



Division – Are They Equal?

Are the equations equal? Put a slash through the equal sign for any equations that are not equal

$4 \div 2 \neq 1$

$6 \div 2 = 3$

$10 \div 2 \neq 8$

Questions Put a slash through the equal sign (\neq) if it is not balanced

1) $3 \div 3 = 1$

2) $10 \div 10 = 10$

3) $5 \div 1 = 5$

4) $8 \div 2 = 4$

5) $10 \div 5 = 2$

6) $1 = 2$

7) $10 \div 5 = 50$

8) $10 \div 2 = 5$

9) $20 \div 5 = 4$

10) $25 \div 5 = 6$

11) $50 \div 10 = 5$

12) $16 \div 2 = 7$

13) $20 \div 10 = 2$

14) $15 \div 5 = 5$

Pre-Algebra – Balancing Division Equations

Balancing equations means both sides of the equal sign must be the same.

$$\begin{array}{c} 5 \\ \wedge \\ 15 \div 3 = \boxed{5} \end{array}$$

Examples:

$$\begin{array}{c} 5 \\ \wedge \\ \boxed{10} \div 2 = 5 \end{array}$$

Questions

Fill in the missing number to balance the equation

1) $9 = \square$

2) $6 \div 3 = \square$

3) $10 \div \square = 5$

4) $6 \div \square = 2$

5) $\square \div 5 = 5$

6) $\square \div 2 = 2$

7) $5 \div 1 = \square$

8) $20 \div \square = 4$

9) $15 \div \square = 3$

10) $10 \div 10 = \square$

11) $25 \div \square = 5$

12) $30 \div 6 = \square$

13) $10 \div \square = 2$

14) $18 \div 2 = \square$

Division – Which Equation Matches?

Two of the equations equal the same number. Which one matches the shaded in equation

Example

$12 \div 4$

$9 \div 3$

$16 \div 4$



Questions: Circle the equation that matches the shaded in equation

1)

$10 \div 2$

$5 \div 1$

$12 \div 6$

2)

$6 \div 3$

$10 \div 5$

$12 \div 6$

3)

$16 \div 4$

$14 \div 7$

$28 \div 7$

4)

$25 \div 5$

$10 \div 2$

5)

$8 \div 2$

$15 \div 3$

$16 \div 4$

6)

$18 \div 3$

$30 \div 5$

$42 \div 6$

7)

$24 \div 6$

$49 \div 7$

$40 \div 10$

Division Word Problems

Questions

Answer the questions below

1) Colton and his 3 other friends shoveled driveways today. At the end of the day, the 4 friends each took home \$20. How much did all four friends make in total?



2) Walker had a bag of candies. He gave 7 candies to each of his 9 friends. How many total candies did he have?



3) Piper biked a long distance today. She biked 6 km each hour for 8 hours. How many kilometres did she bike?



4) Hudson sold a lot of lemonade today. He sold 7 cups each hour for 8 hours. How many cups did he sell today?



Algebra Quiz - Equations**Part 1**

Put a slash through the equal sign if it is not balanced

1) $25 + 15 = 45$

2) $42 + 6 = 48$

3) $87 + 15 = 103$

4) $19 + 10 = 29$

5) $274 - 24 = 249$

6) $326 - 14 = 318$

Part 2

Fill in the missing number to balance the equation

1) $13 + 8 = \underline{\quad}$

2) $\underline{\quad} + 6 = 12$

3) $9 + \underline{\quad} = 65$

4) $137 + 8 = \underline{\quad}$

5) $\underline{\quad} + 18 = 32$

6) $25 + \underline{\quad} = 60$

7) $9 - 6 = \underline{\quad}$

8) $\underline{\quad} - 12 = 8$

9) $47 - 8 = \underline{\quad}$

10) $109 - 5 = \underline{\quad}$

11) $\underline{\quad} - 7 = 132$

12) $170 - 6 = \underline{\quad}$

Part 3

Circle the equation that matches the shaded in equation

1) $16 + 5$

$11 + 11$

$18 + 3$

2) $17 - 5$

$23 - 10$

$21 - 9$

3) 3×3

6×4

5×4

4) $24 \div 3$

$16 \div 4$

$40 \div 5$

Part 4

Put a \neq or $=$ sign if it is not balanced

1) $20 - 15 = 22 - 2$

$12 + 11 = 13 + 10$

3) $8 \times 5 = 6 \times 6$

4) $4 = 30 \div 10$

5) $20 + 15 = 50 - 20$

6) $4 \times 3 = 6$

Part 5

Solve the word problem below. Make sure to write the answer.

Alexa saved 47 dollars from her allowance. She was given some money from her grandmother for her birthday. She now has 80 dollars. How much did her grandmother give her?



Google Slides Lessons Preview





Alberta Math Curriculum Number Unit – Grade 3

3-Part Lesson Format

Part 1 – Minds On!

- Learning Goals
- Discussion Questions
- Quotes
- And More!

Learning Goal

We are learning to identify the place value of digits in whole numbers so we can read, write, and understand large numbers accurately.

Why Are We Learning This?

Imagine you're saving up for a new toy that costs \$460. If you don't understand place value, you might think it's only \$46 and show up at the store with way too little money! Knowing place value helps you understand big numbers, so you can save, spend, and count your money like a pro!

Place Value - How Many...

Fill in the place value chart below.

#	Numbers	# of Tens Thousands	# of Thousands	# of Hundreds	# of Tens	# of Ones
1.	4907					
2.	5642					
3.	8783					
4.	12914					
5.	26657					
6.	84765					



Part 2 – Action!

- Writing
- Matching
- Drag and Drop
- Drawing
- And More!

Part 3 – Consolidation!

- Exit Cards
- Quizzes
- Reflection
- And More!

Word Problem – Place Value

Circle the correct option.

1) Ben has 147 thousands blocks, 3 hundreds blocks, 2 tens blocks and 3 ones blocks. Chris has 145 thousands blocks, 6 hundreds blocks, 7 tens blocks and 9 ones blocks. Chris thinks he has more because he has more blocks. Is he right?

Yes No

2) My number has 8 hundred thousands, 3 tens, 5 more ten thousands as tens, 2 ones, 2 less hundreds as ones, and the same number of thousands as tens. What is my number?



Alberta Math Curriculum Number Unit – Grade 3

Written Form

Match the written forms with their correct standard forms.

Thirty-two thousand three hundred sixty-five

Fifty-four thousand two hundred eighty-three

Ninety-one thousand four hundred fifteen

Sixty-six thousand forty-eight

Twenty thousand one hundred fifty-nine

66 048

32 356

20 159

54 283

91 415

... and write the total.

1000 100 10 1

1	2	3	4	5
6	7	8	9	0

Fill in the blank.

11000 31000 51000 26000 41000 56000 21000 36000 46000 16000



Alberta Math Curriculum Number Unit – Grade 3

Making Benchmark Dollars

Count the money in each column to make a benchmark dollar amount.

1 2 3 4 5
6 7 8 9 0

 1) \$ _____	 2) \$ _____	 3) \$ _____	 4) \$ _____
 5) \$ _____	 6) \$ _____	 7) \$ _____	 8) \$ _____

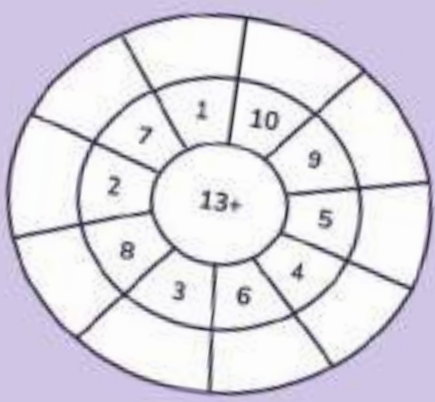
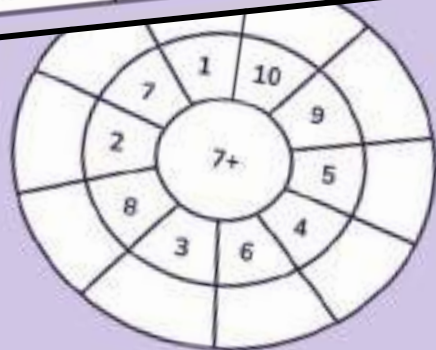
Representing

Represent the money amounts with combinations of coins.

1)			60¢
	60¢	60¢	60¢
2)			95¢
	95¢	95¢	95¢



2 3 4 5
6 7 8 9 0





Workbook Preview





Grade 3
Strand: Number



	Curriculum Expectations	Pages
N.1	<p><u>Students interpret place value within 100 000</u></p> <ul style="list-style-type: none"> Identify the place value of each digit in a natural number. Relate the values of adjacent places. Determine the value of each digit in a natural number. Express natural numbers using words and numerals. Express various compositions of a natural number using place value. Round natural numbers to various places. Compare and order natural numbers. Express the relationship between two numbers using $,$ $,$ or $.$ 	7 - 72
N.2	<p><u>Students explain and apply standard algorithms for addition and subtraction of natural numbers.</u></p> <ul style="list-style-type: none"> Explain the standard algorithms for addition and subtraction of natural numbers. Add and subtract natural numbers using standard algorithms. Estimate sums and differences. Solve problems using addition and subtraction. 	74 - 140
N.3	<p><u>Students analyze and apply strategies for multiplication and division within 100.</u></p> <ul style="list-style-type: none"> Compose a product using equal groups of objects. Relate multiplication to repeated addition. Relate multiplication to skip counting. Investigate multiplication by 0. Model a quotient by partitioning a quantity into equal groups or groups of a certain size, with or without remainders. Visualize and model products and quotients as arrays. Recognize interpretations of multiplication and division in various contexts. 	142 - 206

Preview of 120 pages from
this product that contains
427 pages total.

	Curriculum Expectations	Pages
N.3	<p><u>Students analyze and apply strategies for multiplication and division within 100.</u></p> <ul style="list-style-type: none"> • Investigate multiplication and division strategies. • Multiply and divide within 100. • Verify a product or quotient using inverse operations. • Determine a missing quantity in a product or quotient in a variety of ways. • Express multiplication and division symbolically. • Explain the meaning of the remainder in various situations. • Solve problems using multiplication and division in sharing or grouping situations. • Examine patterns in multiplication and division, including patterns in multiplication tables and skip counting. • Recognize families of related multiplication and division number facts. • Recall multiplication number facts, with factors to 10, and related division facts. 	142 – 206
N.4	<p><u>Students interpret fractions in relation to one whole.</u></p> <ul style="list-style-type: none"> ▪ Model fractions of a whole quantity, length, shape, or object, in various ways, limited to denominators of 12 or less. ▪ Visualize fractions as compositions of a unit fraction. ▪ Identify the numerator and denominator of a fraction in various representations. ▪ Name a given fraction. ▪ Express fractions, including one whole, symbolically, limited to denominators of 12 or less. ▪ Relate various representations of the same fraction, limited to denominators of 12 or less. ▪ Compare the same fraction of different-sized wholes. ▪ Compare different fractions of the same whole that have the same denominator. ▪ Compare different fractions of the same whole that have the same numerator and different denominators. ▪ Express the relationship between two fractions of the same whole, using $,$, or $.$ ▪ Relate a fraction less than one to its position on the number line, limited to denominators of 12 or less. ▪ Compare fractions to benchmarks of 0, $,$, and 1. 	208 – 227



100

N.1

Students interpret place value within 100 000



100

Name: _____

7

Curriculum Connection
N1

Place Value Chart

45 632				
Ten Thousands	Thousands	Hundreds	Tens	Ones
4	5	6	3	2

Part 1

Fill in the place value charts below

1) 189

Ten Thousands	Thousands	Hundreds	Tens	Ones

2) 32 694

Ten Thousands	Thousands	Hundreds	Tens	Ones

3) 63 538

Ten Thousands	Thousands	Hundreds	Tens	Ones

4) 79 423

Ten Thousands	Thousands	Hundreds	Tens	Ones

5) 43 609

Ten Thousands	Thousands	Hundreds	Tens	Ones

6) 184

Ten Thousands	Thousands	Hundreds	Tens	Ones

Part 2

Which place value is the underlined number?

1) 34 <u>8</u> 31 Tens	2) 57 3 <u>8</u> 4	3) <u>2</u> 3 361
4) <u>8</u> 3 321	5) 22 <u>8</u> 39	6) 97 3 <u>5</u> 2
7) 2 <u>9</u> 642	8) 73 <u>3</u> 44	9) 93 0 <u>3</u> 2

Name: _____

10

Curriculum Connection
N1

Expanded Form

328 372 ← Standard Form
 $300\ 000 + 20\ 000 + 8\ 000 + 300 + 70 + 2$ ← Expanded Form

Part 1

What is the standard form of the numbers below?

1) $500\ 000 + 10\ 000 + 1\ 000 + 400 + 80 + 3$

2) $200\ 000 + 10\ 000 + 2\ 000 + 600 + 50 + 2$

3) $200\ 000 + 60\ 000 + 400 + 70 + 5$

4) $400\ 000 + 10\ 000 + 4\ 000 + 800 + 50 + 7$

5) $300\ 000 + 50\ 000 + 200 + 90 + 5$

6) $900\ 000 + 20\ 000 + 4\ 000 + 600 + 20 + 5$

Part 2

What is the expanded form of the numbers below?

1) 351 347

2) 298 447

3) 978 482

4) 758 318

5) 647 207

Exit Cards

Cut Out

Cut out the exit cards below and have students complete them at the end of class

Name: _____

a) What is the standard form of the number below?

$$700000 + 1000 + 200 + 40 + 1$$

b) What is the expanded form of the number below?

591 349

Name: _____

a) What is the standard form of the number below?

$$700000 + 60000 + 1000 + 200 + 40 + 1$$

b) What is the expanded form of the number below?

591 349

Name: _____

a) What is the standard form of the number below?

$$700000 + 60000 + 1000 + 200 + 40 + 1$$

b) What is the expanded form of the number below?

591 349

Name: _____

a) What is the standard form of the number below?

$$700000 + 60000 + 1000 + 200 + 40 + 1$$

b) What is the expanded form of the number below?

591 349

Written Form

1 - One	5 - Five	9 - Nine	13 - Thirteen	17 - Seventeen	30 - Thirty	70 - Seventy
2 - Two	6 - Six	10 - Ten	14 - Fourteen	18 - Eighteen	40 - Forty	80 - Eighty
3 - Three	7 - Seven	11 - Eleven	15 - Fifteen	19 - Nineteen	50 - Fifty	90 - Ninety
4 - Four	8 - Eight	12 - Twelve	16 - Sixteen	20 - Twenty	60 - Sixty	100 - Hundred
						1000 - Thousand

Part 1 Write the standard form of the written words below

1) Six hundred thirty-nine thousand, two hundred	2) Nine hundred sixty-eight thousand, three hundred fifteen.
3) Seven hundred twenty-two thousand, six hundred	4) Eight hundred thirty-seven thousand, five hundred thirty-nine.
5) Four hundred eighty thousand, one hundred ninety-nine.	Three hundred seventeen thousand, seven hundred sixty-four.

Part 2 Write the written form of the number

1) 135 142
2) 467 999
3) 633 237
4) 294 375
5) 253 032

Task Cards: Place Value

Objective

What are we learning about?

Students will practice converting written numbers into their standard form to understand place value and number representation better.

Materials

What you will need for the activity.

- 24 task cards
- Answer sheet for answers
- Pencils



Instructions

How you will run the activity

1. Begin by explaining the concept of place value and the importance of understanding how numbers are constructed in standard form.
2. Organize the students into pairs and provide each pair with their sets of task cards.
3. Give each pair an answer recording sheet to document their solutions.
4. Encourage teamwork by having students collaborate on their problem-solving solutions.
5. Allow students to select any task card to begin with, emphasizing that they can complete the cards in any order they prefer.
6. Instruct students to record the letter of their chosen answer (A, B, or C) on their answer sheet beside the task card's number.
7. Consider using a timer to create a dynamic challenge, adjusting the duration to fit the lesson's objectives and complexity.
8. After the activity, review the answers collectively, discussing any challenging patterns and strategies used to solve them.
9. Have students reflect on the activity, sharing the methods they applied and obstacles they overcame.

Task Cards

Cut out the task cards below

Card 1:

Six hundred forty-one thousand, two hundred fifty-nine

- a) 614,259
 b) 641,295
 c) 641,259

Card 5:

What is the expanded form of the number below?

591,349

- a) $500,000 + 90,000 + 10,000 + 300 + 40 + 9$
 b) $500,000 + 90,000 + 1,000 + 300 + 40 + 9$
 c) $500,000 + 90,000 + 1,000 + 3,000 + 40 + 9$

Card 6:

Two hundred nine thousand, three hundred forty-five

- a) 425,705
 b) 425,750
 c) 452,705

- a) 209,345
 b) 290,453
 c) 209,354

Card 3:

432,730

- a) $400,000 + 30,000 + 2,000 + 700 + 30$
 b) $400,000 + 30,000 + 20,000 + 700 + 30$
 c) $400,000 + 30,000 + 2,000 + 700 + 300$

Seven hundred seven thousand, seven hundred thirty-five

- a) 707,335
 b) 772,265
 c) 772,657

Card 4: $700,000 + 60,000 + 1,000 + 200 + 40 + 1$

- a) 761,241
 b) 760,241
 c) 761,201

Card 8:

Fifty-eight thousand, ninety

- a) 58,009
 b) 58,900
 c) 58,090

Task Cards

Cut out the task cards below

Card 9:

$$(5 \times 100\,000) + (3 \times 10\,000) + (2 \times 1\,000) + (4 \times 100) + (8 \times 10)$$

- a) 532,480
b) 523,480
c) 532,408

Card 13:

Five hundred twelve thousand, six hundred twenty-nine

- a) 521,629
b) 512,629
c) 512,269

Card 14:

$$(5 \times 100\,000) + (6 \times 10\,000) + (1 \times 1\,000) + (8 \times 100) + (7 \times 10)$$

- a) 561,870
b) 516,870
c) 561,780

Card 11:

375,291

- a) $300,000 + 70,000 + 5,000 + 200 + 90 + 1$
b) $300,000 + 75,000 + 2,000 + 90 + 1$
c) $300,000 + 70,000 + 5,000 + 200 + 9 + 1$

Card 12:

My number has 6 hundred thousands, 7 ones, 2 more hundreds than ones, half as many ten thousands as hundred thousands, 2 tens, and 5 thousands.

What is my number?

- a) 635,321 b) 675,217 c) 635,927

Card 15:

675,411

- a) $600,000 + 75,000 + 5,000 + 100 + 1$
b) $600,000 + 70,000 + 5,000 + 100 + 21$
c) $600,000 + 70,000 + 5,000 + 100 + 20 + 1$

Card 16:

$$800,000 + 50,000 + 6,000 + 300 + 70 + 2$$

- a) 856,307
b) 865,372
c) 856,372

Task Cards

Cut out the task cards below

Card 17:

What is the expanded form of the number below?

745,210

- a) $700,000 + 40,000 + 5,000 + 200 + 10$
 b) $700,000 + 40,000 + 50,000 + 200 + 10$
 c) $700,000 + 40,000 + 5,000 + 2,000 + 10$

Card 21:
 $(7 \times 100\,000) + (4 \times 10\,000) + (5 \times 1\,000) + (9 \times 100) + (2 \times 10)$

- a) 745,290
 b) 754,920
 c) 745,920

Eight hundred twenty-four thousand
 hundred twenty-six

- a) 820,564
 b) 820,456
 c) 802,456

Card 22:

654,321

 $600,000 + 50,000 + 4,000 + 30 + 20 + 1$
 $600,000 + 50,000 + 4,000 + 300 + 20 + 1$
 $600,000 + 50,000 + 40,000 + 300 + 20 + 1$
Card 19:

Six hundred ninety thousand, eight hundred twenty-three

- a) 690,823
 b) 690,283
 c) 609,823

Card 23:

567,412

- a) $500,000 + 60,000 + 7,000 + 400 + 10 + 2$
 b) $500,000 + 60,000 + 7,000 + 400 + 30 + 2$
 c) $500,000 + 60,000 + 7,000 + 400 + 30 + 2$

Card 20:

Forty-seven thousand, three hundred twelve

- a) 47,132
 b) 47,312
 c) 47,231

Card 24:

My number has 2 hundred thousands, 4 ones, 3 more hundreds than ones, twice as many ten thousands as hundred thousands, 1 ten, and 6 thousands.

What is my number?

- a) 216,714 b) 246,714 c) 246,471

Name: _____

18

Task Cards: Place Value

Answers

Record your answers below

1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	

13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	

PREVIEW

Place Value – World Problems

Questions

Answer the word problems below



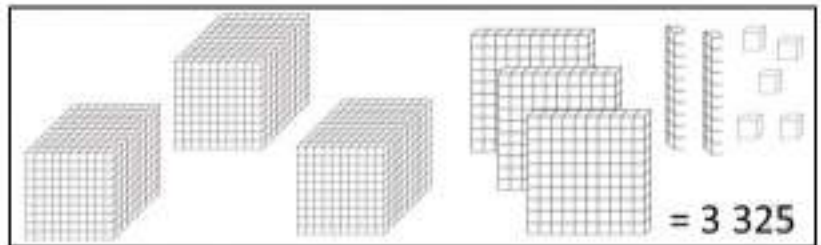
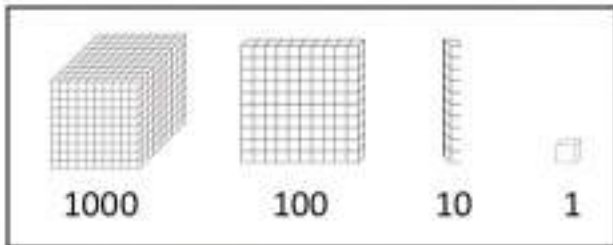
- 1) Ben has 147 thousands blocks, 3 hundreds blocks, 2 tens blocks and 3 ones blocks. Chris has 145 thousands blocks, 6 hundreds blocks, 7 tens blocks and 9 ones blocks. Chris thinks he has more because he has more blocks. Is he right?

- 2) My number has 4 thousands, 7 ones, 2 more hundreds than ones, half as many tens as thousands and 1 thousand, 2 tens, and 5 thousands. What is my number?

- 3) My number has 5 ones, 3 thousands, twice as many hundreds as thousands, 4 ten thousands, half as many hundreds as ten thousands, and 9 tens. What is my number?

- 4) My number has 8 hundred thousands, 3 tens, 5 more ten thousands as tens, 2 ones, 2 less hundreds as ones, and the same number of thousands as tens. What is my number?

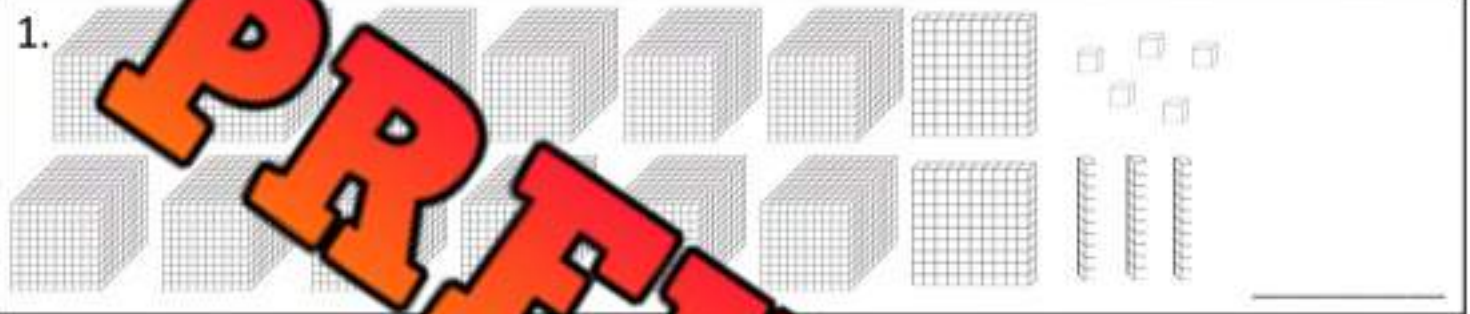
Base Ten Blocks



Part 1

How many blocks do you count?

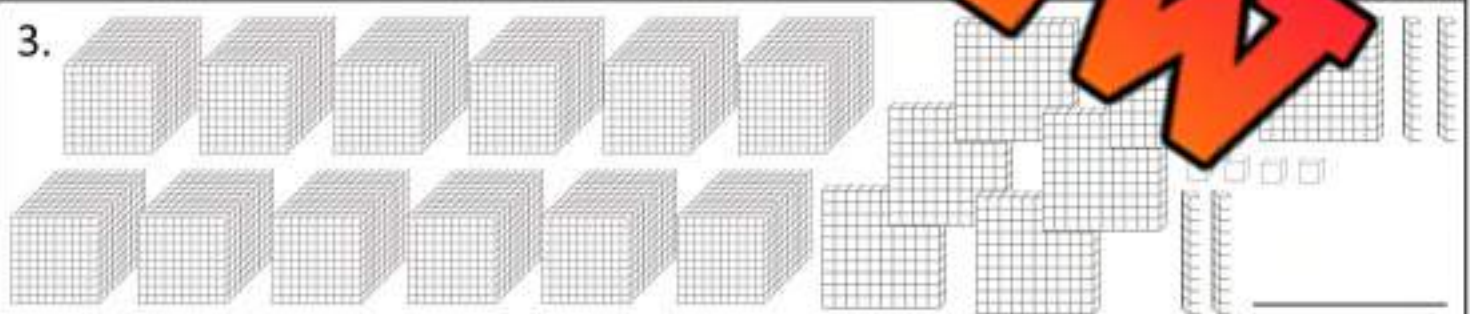
1.



2.



3.



Part 2

Draw the base ten blocks to represent the numbers below

12 424

Example

Standard Form

428 143

Words

Four hundred twenty-eight thousand, one hundred forty-three

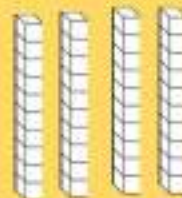
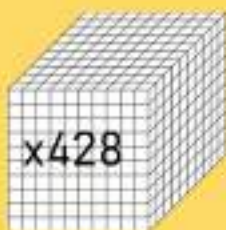
Expanded Form

$400\,000 + 20\,000 + 8\,000 + 100 + 40 + 3$

Place Value Chart

Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones
4	2	8	1	4	3

Pictures



Cut out and post in your class

Standard Form

Words

nded Form

Place Value Chart

Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones

Pictures

PREVIEW

Place Value - Number Breakdown

Questions

Fill in the blanks below

Number Breakdown

548 782

H Th	Te	Th	H	T	O

Write the value of the underlined digit

1) 548 782 = _____

2) 548 782 = _____

3) 548 782 = _____

4) 548 782 = _____

Fill in the blanks using the expanded form below

_____ + _____ + _____ + _____

Fill in the pattern below

548 782 , _____ , 548 784 , _____ , 548 787

Fill in the pattern below

548 782 , _____ , 548 802 , 548 812

Fill in the pattern below

548 782 , 548 882 , _____ , 549 082 , _____

Compare using $<$, $>$, or $=$

548 782 548 795

515 315 548 782

548 782 523 346

588 325 548 782

508 237 548 782

548 782	+10	
548 782	+100	
548 782	+10 000	
548 782	- 1 000	
548 782	- 10 000	

Name: _____

32

Curriculum Connection
N1

Place Value Quiz

Part 1

Fill in the place value charts below

1) 43 638

Ten Thou	Thou	Hun	Tens	Ones

2) 346 195

Hun Thou	Ten Thou	Thou	Hun	Tens	Ones

Part 2

What is the value of the underlined number?

1) 32 6322) 3461953) 49 5954) 518 3175) 346 1956) 934 234

Part 3

Fill in the table below

	Number	# of Thousands	# of Hundreds	# of Tens	# of Ones
1.	94 325				
2.	18 474				
3.	873 126				

Part 4

What is the standard form of the numbers below?

1) 20 000 + 7 000 + 100 + 40 + 7

2) 900 000 + 80 000 + 4 000 + 500 + 30 + 8

Part 5

What is the expanded form of the numbers below?

1) 72 285

2) 52 383

3) 784 178

Part 6

Write the standard form of the written words below

1) Seven hundred sixty-two

2) Seven hundred eighty-nine thousand, two hundred seventy-four

Part 7

Write the written form of the numbers below

1) 37 284

2) 716 517

Part 8

Solve the riddles

1) Which number has: 4 hundreds, 3 less tens than hundreds, and 7 more ones than tens?

2) My number has 2 hundred thousands, 6 tens, 2 more ten thousands as tens, 5 ones, 2 less hundreds as ones, and the same number of thousands as tens. What is my number?

Counting to 100 000 by 5 000

Part 1

Count by 5 000



	50 000		70 000
5 000			
	35 000		
20 000			90 000



Part 2

Fill in the blanks counting by 5000 starting with the first number.

1) 12000, 17000, 22000, _____, _____, _____

2) 26000, _____, _____, 41000, _____, _____

3) _____, 63000, _____, _____, 78000, _____, _____

4) 57000, _____, _____, _____, _____, _____

Comparing Numbers

626 335



923 615

834 351



236 289

132 683



132 683

Part 1

Compare the following numbers

1) 663 189 <input type="checkbox"/> 900 010	2) 263 447 <input type="checkbox"/> 313 350	3) 631 203 <input type="checkbox"/> 631 294
4) 135 437 <input type="checkbox"/> 135 437	5) 742 753 <input type="checkbox"/> 742 753	6) 362 149 <input type="checkbox"/> 365 000
7) 532 842 <input type="checkbox"/> 532 312	8) 50 393 <input type="checkbox"/> 50 393	9) 544 879 <input type="checkbox"/> 544 879
10) 235 441 <input type="checkbox"/> 237 391	11) 923 383 <input type="checkbox"/> 923 383	12) 274 371 <input type="checkbox"/> 274 371

Part 2

Write - Greater than, Equal to, Less than

1) 173 365 is _____ 141 537 Greater than	2) 162 116 is _____ 162 116 _____
3) 438 406 is _____ 453 293 _____	4) 754 361 is _____ 754 361 _____
5) 874 335 is _____ 874 432 _____	6) 435 114 is _____ 445 115 _____

Exit Cards

Cut Out

Cut out the exit cards below and have students complete them at the end of class

Name: _____

Compare the following numbers.

a) 765 673 599 120

b) 406 232 346 185

c) 269 847 457 561

d) 853 915 851 472

Name: _____

Compare the following numbers.

a) 765 673 599 120

b) 406 232 346 185

c) 269 847 457 561

d) 853 915 851 472

Name: _____

Compare the following numbers.

a) 765 673 599 120

b) 406 232 346 185

c) 269 847 457 561

d) 853 915 851 472

Name: _____

Compare the following numbers.

a) 765 673 599 120

b) 406 232 346 185

c) 269 847 457 561

d) 853 915 851 472

Comparing Base Ten Blocks

Questions

Compare the number of base ten blocks below

 x135	<input type="text"/>	 x202
<hr/>		

 x85	<input type="text"/>	 x100
<hr/>		

 x249	<input type="text"/>	 x202
<hr/>		

 x315	<input type="text"/>	 x318
<hr/>		

 x482	<input type="text"/>	 x482
<hr/>		

 x782	<input type="text"/>	 x777
<hr/>		

 x912	<input type="text"/>	 x920
<hr/>		

 x431	<input type="text"/>	 x431
<hr/>		

PREVIEW

Name: _____

39

Curriculum Connection
N1

Comparing Numbers

18 625, 35 251, 18 323, 34 482

Least to Greatest

18 323, 18 625, 34 482, 35 251

245 871, 189 784, 324 845, 189 218

Greatest to Least

324 845, 245 871, 189 784, 189 218

Part 1

Order the numbers below from least to greatest

148 875, 151 785, 148 982, 151 658

_____, _____, _____, _____

94 157, 613 258, 451 874

_____, _____, _____, _____

945 254, 955 728 7, 86 445

_____, _____, _____, _____

Part 2

Order the numbers below from greatest to least

314 854, 341 785, 341 235, 314 824

_____, _____, _____, _____

264 872, 298 412, 299 452, 278 258

_____, _____, _____, _____

581 775, 538 785, 581 655, 538 999

_____, _____, _____, _____

Rounding Numbers to the Nearest 1000 – Number Line

Round Down

Round Up

0

1

2

3

4

5

6

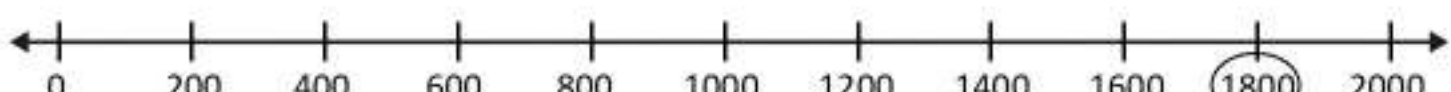
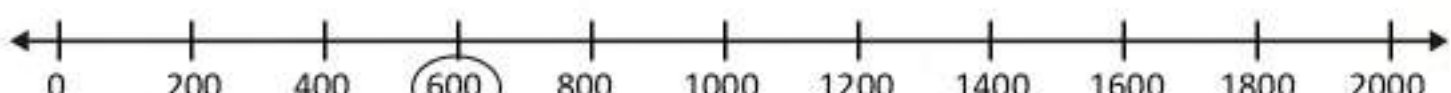
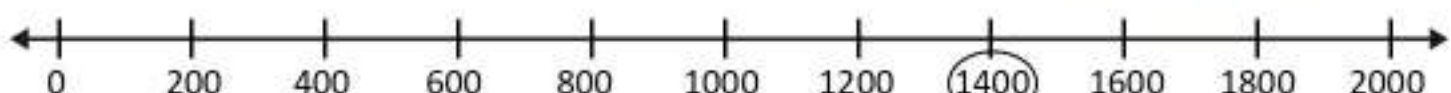
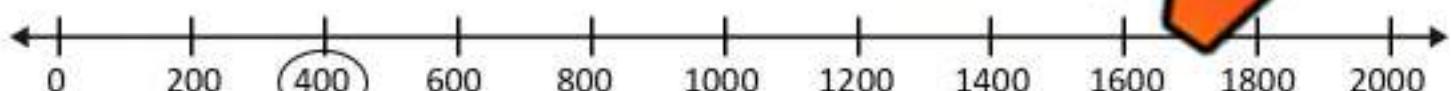
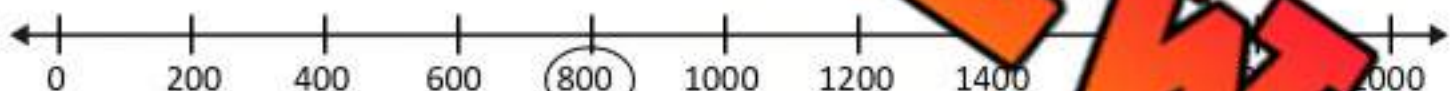
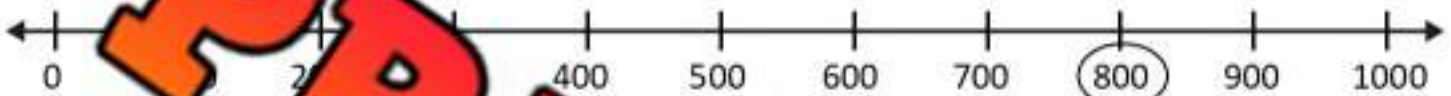
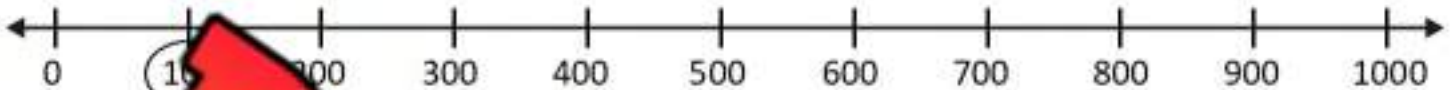
7

8

9

Questions

Round the number to the nearest thousand (circle the new number)



Rounding Numbers 3 Different Ways

Round Down

Round Up

←											→
0	1	2	3	4	5	6	7	8	9		

$\begin{array}{r} 10 \\ 1864 \rightarrow 1860 \end{array}$	$\begin{array}{r} 100 \\ 1864 \rightarrow 1900 \end{array}$	$\begin{array}{r} 1000 \\ 1864 \rightarrow 2000 \end{array}$
--	---	--

















Question Round the numbers three different ways

#	10	100	1000
1)	$2137 \rightarrow$ _____	$2137 \rightarrow$ _____	$2137 \rightarrow$ _____
2)	$4236 \rightarrow$ _____	$4236 \rightarrow$ _____	$4236 \rightarrow$ _____
3)	$6841 \rightarrow$ _____	$6841 \rightarrow$ _____	$6841 \rightarrow$ _____
4)	$5615 \rightarrow$ _____	$5615 \rightarrow$ _____	$5615 \rightarrow$ _____
5)	$7519 \rightarrow$ _____	$7519 \rightarrow$ _____	$7519 \rightarrow$ _____
6)	$3782 \rightarrow$ _____	$3782 \rightarrow$ _____	$3782 \rightarrow$ _____
7)	$8559 \rightarrow$ _____	$8559 \rightarrow$ _____	$8559 \rightarrow$ _____
8)	$9463 \rightarrow$ _____	$9463 \rightarrow$ _____	$9463 \rightarrow$ _____

Counting Dollars

				Total
\$100	\$50	\$20	\$20	\$190

Questions: Count the money in each column. Then add up the total

1) 				Total
2) 				Total
3) 				Total
4) 				Total

Counting Dollars

Questions

Count the money and write down the total

1)



\$ _____

2)



\$ _____

3)



\$ _____

4)



\$ _____

5)



\$ _____

6)



\$ _____

7)



\$ _____

Counting Cents



= 25¢



= 10¢



= 5¢



= 25¢

Questions

Count the money in each column to make a benchmark cent amount



1) _____



3) _____



4) _____



5) _____



6) _____



7) _____



8) _____



9) _____



10) _____

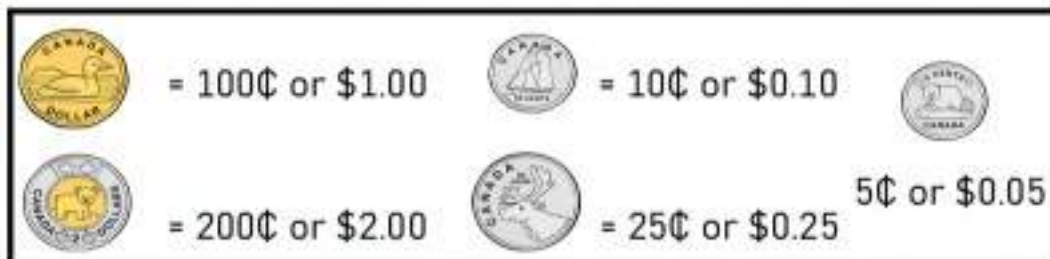


11) _____






12) _____




Counting Canadian Coins






Questions Count the coins below

	
1) _____ ¢ or \$ _____	3) _____ ¢ or \$ _____

		
4) _____ ¢ or \$ _____	5) _____ ¢ or \$ _____	6) _____ ¢ or \$ _____

		
7) _____ ¢ or \$ _____	8) _____ ¢ or \$ _____	9) _____ ¢ or \$ _____

		
10) _____ ¢ or \$ _____	11) _____ ¢ or \$ _____	12) _____ ¢ or \$ _____

Exit Cards

Cut Out

Cut out the exit cards below and have students complete them at the end of class

Name: _____

Count the coins below



1) _____ ¢ or \$ _____

Name: _____

Count the coins below



_____ ¢ or \$ _____

Name: _____

Count the coins below



1) _____ ¢ or \$ _____

Name: _____

Count the coins below















1) _____ ¢ or \$ _____









Counting Canadian Coins

				Total
200¢	100¢	50¢	20¢	370¢

Question Count the money in each column and then add up the total

1)				Total
2)				Total
3)				Total
4)				Total




Representing Cents Up To 100

 	  	  
15¢	45¢	75¢

Question Represent the money amounts using 5, 10, and 25 cent coins

1) 25¢	2) 4¢	3) 50¢
4) 10¢	5) 30¢	6) 60¢
7) 75¢	8) 85¢	9) 90¢
10) 70¢	11) 95¢	12) 65¢




Representing Money in Different Ways

		
150¢	150¢	150¢

Question Represent the money amounts using different combinations of coins

1)		
120¢		120¢
2)		
135¢	135¢	135¢
3)		
160¢	160¢	160¢
4)		
185¢	185¢	185¢

Representing Up To \$50 in Different Ways

		
\$46	\$46	\$46




Questions _____ present the money amounts using different combinations of bills/coins

1)		
\$30		\$30
2)		
\$27	\$27	
3)		
\$38	\$38	\$38
4)		
\$44	\$44	\$44

Name: _____

67

Curriculum Connection
N1**Representing Up To \$200 in Different Ways**

		
\$132	\$132	\$132

Question

Represent the money amounts up to \$200

1)		
\$130		\$130
2)		
\$147	\$147	\$147
3)		
\$165	\$165	\$165
4)		
\$191	\$191	\$191

English and French – Dollars and Cents

The dollar sign, \$, is placed to the left of the dollar value in English and to the right of the dollar value in French. The cent sign, ¢, is placed to the right of the cent value in English and in French.



Questions

Count the money. Write the English and French amounts in either dollars or cents

	Money	English	French
1)			
2)			
3)			
4)			
5)			
6)			
7)			

Number Sense Quiz



Part 1

Compare the following numbers

- | | | |
|--|--|--|
| 1)
53 185 <input type="checkbox"/> 12 520 | 2)
24 875 <input type="checkbox"/> 30 470 | 3)
73 215 <input type="checkbox"/> 73294 |
| 4)
156 16 <input type="checkbox"/> 16 | 5)
651 312 <input type="checkbox"/> 652 753 | 6)
361 349 <input type="checkbox"/> 361 349 |

Part 2

Order numbers from least to greatest

238 875, 251 238, 51 656

_____, _____, _____

794 000, 748 999, 713 159, 11

_____, _____, _____

Part 3

Round the numbers to the nearest 10

1) 27 → _____

2) 53 → _____

3) 148 → _____

Part 4

Round the numbers to the nearest 100

1) 227 → _____

2) 463 → _____

3) 1638 → _____



Part 5

Count the dollars below



1) _____



3) _____



4) _____



5) _____



6) _____



Part 6

Count the cents below



1) _____



2) _____

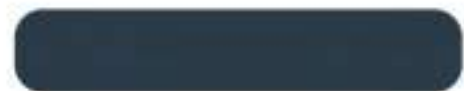


3) _____



N.2

Students apply strategies
for addition and subtraction
within 1000.



Mental Math Strategy – Counting On

Directions:

1. Circle the higher number on the hundred's chart/number line.
2. Count up by the other number and write down the answer

$13 + 5 = \underline{\hspace{2cm}}$

HUNDREDS Chart									
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

$17 + 4 = \underline{\hspace{2cm}}$

HUNDREDS Chart									
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

$23 + 7 = \underline{\hspace{2cm}}$

HUNDREDS Chart									
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

$34 + 7 = \underline{\hspace{2cm}}$

HUNDREDS Chart									
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

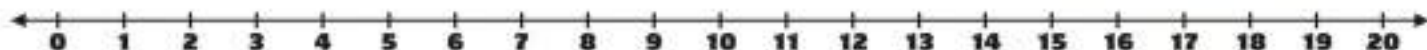
$64 + 6 = \underline{\hspace{2cm}}$

HUNDREDS Chart									
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

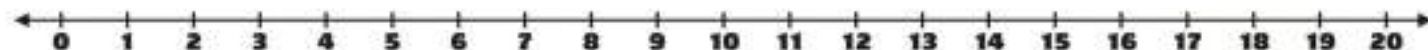
$83 + 8 = \underline{\hspace{2cm}}$

HUNDREDS Chart									
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

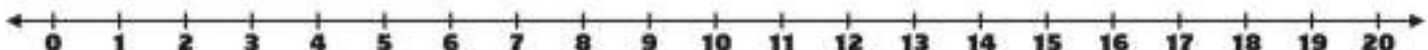
$7 + 9 = \underline{\hspace{2cm}}$



$11 + 6 = \underline{\hspace{2cm}}$



$7 + 13 = \underline{\hspace{2cm}}$



Mental Math Strategy – Making Tens

Directions:

1. Create a ten by taking some from the other number.
2. Add the remaining amount.



1) $20 + 7$

4

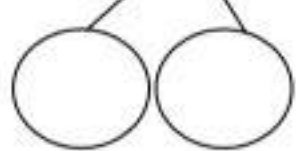
$20 + 3 = 23$

2) $19 + 6$



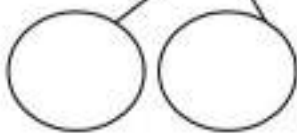
$___ + ___ = ___$

3) $8 + 18$



$___ + ___ = ___$

4) $8 + 14$



$___ + ___ = ___$

+ 7



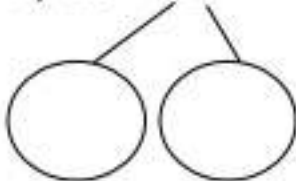
$___ + ___ = ___$

6) $18 + 13$



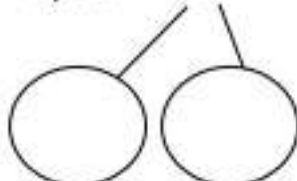
$___ + ___ = ___$

7) $28 + 13$



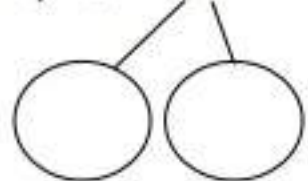
$___ + ___ = ___$

8) $39 + 17$



$___ + ___ = ___$

9) $48 + 24$



$___ + ___ = ___$

Mental Math Strategy – Making Doubles

Directions:

- Decide which number you will double and add those numbers together.
 - Subtract or add the remaining amount
- *** If you added to the original number, subtract at the end. If you subtracted from the original number, then add at the end.



$10 + 10 = 20$ $20 - 1 = 19$	$5 + 6$ $5 + 5 = 10$ $10 + 1 = 11$	$3 + 4$
$4 + 5$		$11 + 10$
$20 + 21$	$15 + 16$	
$29 + 30$	$31 + 30$	$50 + 51$

Mental Math – Break Into Place Value

Directions:

1. Solve each digit by writing out its place value and adding it to the other number's same place value (hundreds + hundreds, tens + tens, ones + ones)
2. Add together your totals



$5 + 13$ $20 + 28$	$13 + 12$
$14 + 17$	$22 + 23$
$24 + 13$	36
$45 + 41$	$52 + 44$

Mental Math – Adding In Chunks

Directions:

1. Keep the bigger number the same
2. Add "chunks" of the smaller number to the bigger number
3. The chunks need to add up to the smaller number



$44 + 25$ $48 + 15$ 45	$34 + 15$
$43 + 36$	$64 + 28$
$34 + 58$	52
$57 + 53$	$64 + 67$

Estimate and Add**Part 1** Round these numbers to the nearest hundred. Then add the numbers together

$$\begin{array}{r} 232 \longrightarrow 200 \\ + 171 \longrightarrow + 200 \\ \hline 400 \end{array}$$

$$\begin{array}{r} 338 \longrightarrow \\ + 352 \longrightarrow + \underline{\hspace{2cm}} \end{array}$$

$$\begin{array}{r} \longrightarrow \\ + 283 \longrightarrow + \underline{\hspace{2cm}} \end{array}$$

$$\begin{array}{r} 621 \longrightarrow \\ + 449 \longrightarrow + \underline{\hspace{2cm}} \end{array}$$

Part 2 Round these numbers to the nearest thousand. Then add the numbers together

$$\begin{array}{r} 1\,204 \longrightarrow 1\,000 \\ + 2\,431 \longrightarrow + 2\,000 \\ \hline 3\,000 \end{array}$$

$$\begin{array}{r} 1\,053 \longrightarrow \\ + 9 \longrightarrow + \underline{\hspace{2cm}} \end{array}$$

$$\begin{array}{r} 5\,298 \longrightarrow \\ + 2\,708 \longrightarrow + \underline{\hspace{2cm}} \end{array}$$

$$\begin{array}{r} 4\,313 \longrightarrow \\ + 4\,812 \longrightarrow + \underline{\hspace{2cm}} \end{array}$$

Part 3 Solve the word problem below using estimation

Kevin made \$2 235 this summer working for a local business. He already has \$3 943 saved. How many thousands does he now have?

Adding – No Regrouping**Questions**

Use the standard algorithm to solve the addition problems below

$$\begin{array}{r} 52 \\ + 11 \\ \hline \end{array}$$

$$\begin{array}{r} 23 \\ + 14 \\ \hline \end{array}$$

$$\begin{array}{r} 42 \\ + 17 \\ \hline \end{array}$$

$$\begin{array}{r} 12 \\ + 33 \\ \hline \end{array}$$

$$\begin{array}{r} 55 \\ + 40 \\ \hline \end{array}$$

$$\begin{array}{r} 28 \\ + 21 \\ \hline \end{array}$$

$$\begin{array}{r} 26 \\ + 24 \\ \hline \end{array}$$

$$\begin{array}{r} 76 \\ + 23 \\ \hline \end{array}$$

$$\begin{array}{r} 55 \\ + 22 \\ \hline \end{array}$$

$$\begin{array}{r} 32 \\ + 31 \\ \hline \end{array}$$

$$\begin{array}{r} 66 \\ + 23 \\ \hline \end{array}$$

$$\begin{array}{r} 42 \\ + 16 \\ \hline \end{array}$$

$$\begin{array}{r} 136 \\ + 154 \\ \hline \end{array}$$

$$\begin{array}{r} 43 \\ + 115 \\ \hline \end{array}$$

$$\begin{array}{r} 382 \\ + 115 \\ \hline \end{array}$$

$$\begin{array}{r} 312 \\ + 161 \\ \hline \end{array}$$

$$\begin{array}{r} 516 \\ + 360 \\ \hline \end{array}$$

$$\begin{array}{r} 872 \\ + 121 \\ \hline \end{array}$$

$$\begin{array}{r} 452 \\ + 317 \\ \hline \end{array}$$

$$\begin{array}{r} 614 \\ + 362 \\ \hline \end{array}$$

$$\begin{array}{r} 915 \\ + 44 \\ \hline \end{array}$$

$$\begin{array}{r} 774 \\ + 224 \\ \hline \end{array}$$

$$\begin{array}{r} 236 \\ + 440 \\ \hline \end{array}$$

$$\begin{array}{r} 662 \\ + 335 \\ \hline \end{array}$$

$$\begin{array}{r} 733 \\ + 40 \\ \hline \end{array}$$

Addition Word Problem – No Regrouping**Questions**

Solve the problems below

1) William walked 403 steps last hour and 245 steps this hour. How many steps did he walk in the last two hours?



2) Spencer had \$400 in his bank account. He won \$247 in a raffle. How much does he have now?



3) Rob loves to drink juice. Today he drank 546 mL of orange juice and 358 mL of apple juice. How much total juice did Rob drink?



4) Sofia knitted a blanket with 452cm of blue yarn and 514cm of purple yarn. How many centimetres of total yarn did Sofia use to make the blanket?



Regrouping – Which is Equal?

Questions

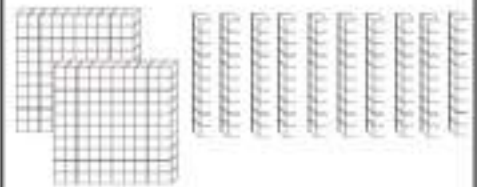
Which is equal to the picture? There may be more than one answer!



- a) 1 ten
- b) 1 hundred
- c) 12 ones



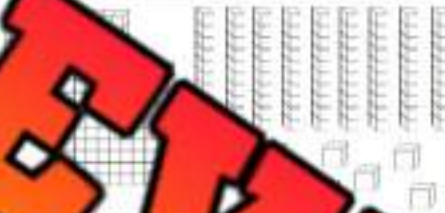
- a) 2 tens, 3 ones
- b) 3 tens, 3 ones
- c) 2 tens, 13 ones



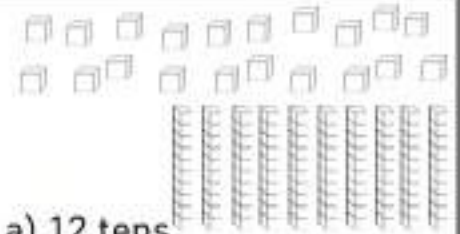
- a) 2 hundreds, 10 tens
- b) 3 hundreds
- c) 12 tens



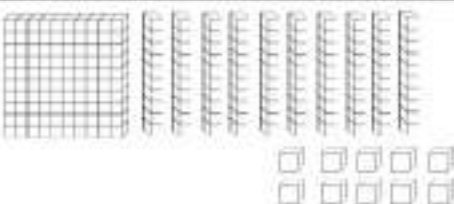
- a) 20 ones
- b) 1 ten, 10 ones
- c) 20 tens



- a) 20 tens
- b) 2 hundreds, 11 tens
- c) 3 hundreds



- a) 12 tens
- b) 20 ones
- c) 12 ones



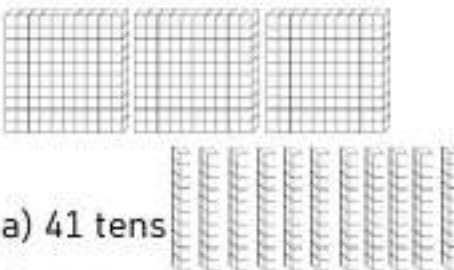
- a) 1 hundred, 11 tens
- b) 2 hundreds, 11 tens
- c) 30 tens



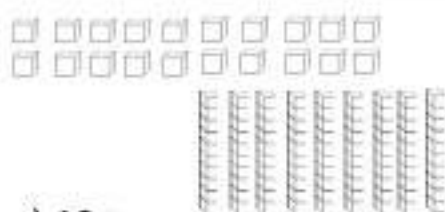
- a) 9 tens, 10 ones
- b) 1 hundred
- c) 10 tens



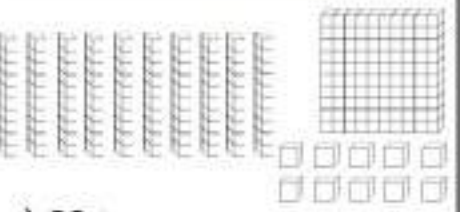
- a) 14 tens
- b) 1 ten, 4 ones
- c) 14 ones



- a) 41 tens
- b) 41 hundreds
- c) 4 hundreds, 1 ten



- a) 10 tens
- b) 1 hundred, 1 ten
- c) 11 tens



- a) 20 tens
- b) 1 hundred, 11 tens
- c) 210 ones

Adding – Regrouping

Questions

Use the standard algorithm to solve the addition problems below

	Tens	Ones
+	5	5
<hr/>		

	Tens	Ones
	4	8
	5	4
<hr/>		

	Tens	Ones
	5	5
+	2	5
<hr/>		

	Tens	Ones
	5	5
+	2	5
<hr/>		

	Hun.	Tens	Ones
	6	6	3
+	2	5	3
<hr/>			

			Ones
	5	6	6
+	3	6	6
<hr/>			

	Hun.	Tens	Ones
	1	4	2
+	7	9	9
<hr/>			

	Hun.	Tens	Ones
	1	4	5
+	7	8	5
<hr/>			

	Hun.	Tens	Ones
	7	6	9
+	7	8	9
<hr/>			

	Hun.	Tens	Ones
	9	5	8
+	7	6	7
<hr/>			

Addition Word Problems - Regrouping

Questions

Solve the problems below

1) Isaac donated \$468 last year to charity. This year, he has donated \$429. How much has Isaac donated in the last two years?



2) A delivery driver drove 498km last week. This week, the driver has driven 371km. How far has the driver driven in total last week?



3) Charlotte ate two cookies today. Each cookie had 125 grams of cookies. How many grams of cookies did she eat?



4) Ken ran 354m this morning according to his GPS. He ran 568m after school today. How many total metres did Ken run today?



Name: _____

94

Curriculum Connection
N2

Addition Questions



Questions

Solve the questions below

1) $758 + 142$

2) $348 + 457$

3) $634 + 248$

4) $462 + 425$

5) $348 + 364$

6) $672 + 276$

7) $482 + 510$

8) $358 + 576$

PREVIEW

Exit Cards

Cut Out

Cut out the exit cards below and have students complete them at the end of class

Name: _____

Solve the problems below

- a) _____
- b) James scored _____ points in basketball last year. He scored _____ this season. How many total points has he scored in the last two years?

Name: _____

Solve the problems below

- a)
$$\begin{array}{r} 527 \\ + 234 \\ \hline \end{array}$$
- b) James scored 213 points in basketball last year. He scored 291 this season. How many total points has he scored in the last two years?

Name: _____

Solve the problems below

- a)
$$\begin{array}{r} 527 \\ + 234 \\ \hline \end{array}$$
- b) James scored 213 points in basketball last year. He scored 291 this season. How many total points has he scored in the last two years?

Name: _____

Solve the problem

- a)
$$\begin{array}{r} 527 \\ + 234 \\ \hline \end{array}$$
- b) James scored 213 points in basketball last year. He scored 291 this season. How many total points has he scored in the last two years?

Name: _____

97

Title: "Sum Up Relay"

Objective

What are we learning about?

To improve students' ability to add numbers quickly and accurately, working together in teams to reach sums up to 1000 in a relay race format.

Materials

What you will need for the activity.

- A number card (each card has a number between 1-10)
- A whiteboard and paper
- Markers
- A stopwatch or timer (one for each team)



Instructions

How you will complete the activity.

1. Prepare a deck of number cards, ensuring there are enough cards for several rounds of play. Each card should have a number between 1 and 10.
2. Divide the class into small teams, each team standing at one end of the classroom.
3. Place the deck of number cards at the front of the classroom near the whiteboard.
4. At the start of the relay, the first student from each team runs to the deck, picks a card, and quickly adds the number on the card to the team's running total written on the whiteboard.
5. The student runs back, tags the next team member, who then runs up, draws a card, and adds the new number to their team's total.
6. Continue until one team's total sum reaches exactly 1000 or the closest to it within a set time limit.
7. Use the stopwatch to keep the game moving quickly, timing each student's turn if desired for added challenge.

Name: _____

Cards

Cut out the cards below

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

29

30

31

32

33

34

35

36

37

38

39

40

41

42

43

44

45

46

47

48

49

50

PREVIEW

Name: _____

99

Curriculum Connection
N2

Cards

Cut out the cards below

51

52

53

54

55

56

57

58

59

60

61

62

63

64

65

66

67

68

69

70

71

72

73

74

75

76

77

78

79

80

81

82

83

84

85

86

87

88

89

90

91

92

93

94

95

96

97

98

99

100

PREVIEW

Math Facts – Adding 0 and 5**Questions**

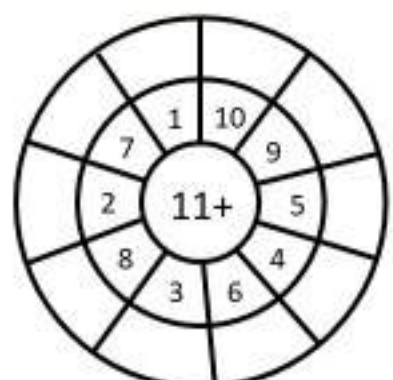
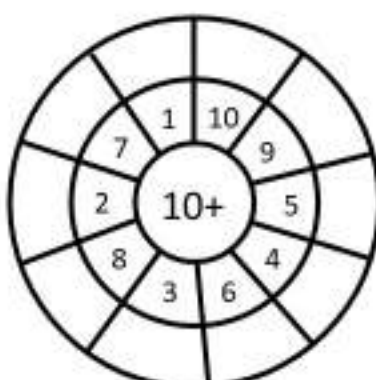
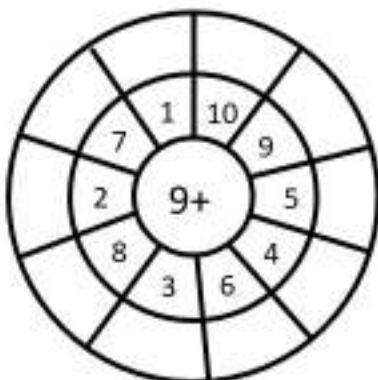
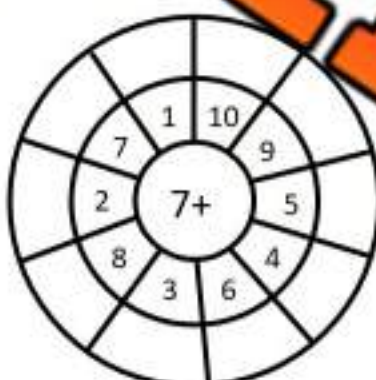
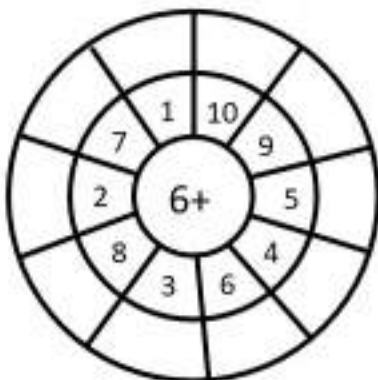
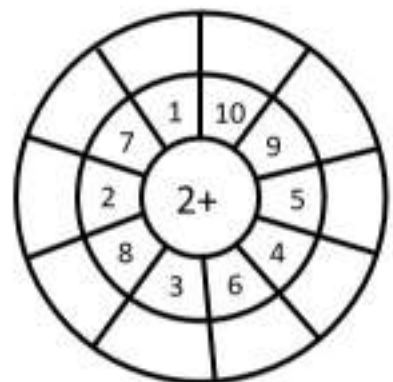
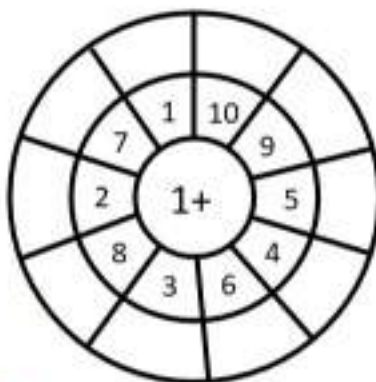
Solve as many problems as you can before the time runs out!

$\begin{array}{r} 6 \\ + 0 \\ \hline \end{array}$	$\begin{array}{r} 2 \\ + 5 \\ \hline \end{array}$	$\begin{array}{r} 8 \\ + 0 \\ \hline \end{array}$	$\begin{array}{r} 7 \\ + 5 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ + 3 \\ \hline \end{array}$	$\begin{array}{r} 0 \\ + 3 \\ \hline \end{array}$
$\begin{array}{r} 6 \\ + 5 \\ \hline \end{array}$	$\begin{array}{r} 8 \\ + 0 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ + 4 \\ \hline \end{array}$	$\begin{array}{r} 0 \\ + 3 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ + 4 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ + 6 \\ \hline \end{array}$
$\begin{array}{r} 6 \\ + 0 \\ \hline \end{array}$	$\begin{array}{r} 8 \\ + 0 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ + 7 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ + 5 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ + 8 \\ \hline \end{array}$	$\begin{array}{r} 2 \\ + 0 \\ \hline \end{array}$
$\begin{array}{r} 5 \\ + 9 \\ \hline \end{array}$	$\begin{array}{r} 2 \\ + 5 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ + 7 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ + 6 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ + 5 \\ \hline \end{array}$	$\begin{array}{r} 7 \\ + 0 \\ \hline \end{array}$
$\begin{array}{r} 5 \\ + 3 \\ \hline \end{array}$	$\begin{array}{r} 2 \\ + 0 \\ \hline \end{array}$	$\begin{array}{r} 0 \\ + 6 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ + 2 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ + 1 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ + 7 \\ \hline \end{array}$
$\begin{array}{r} 4 \\ + 0 \\ \hline \end{array}$	$\begin{array}{r} 9 \\ + 5 \\ \hline \end{array}$	$\begin{array}{r} 2 \\ + 5 \\ \hline \end{array}$	$\begin{array}{r} 1 \\ + 0 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ + 1 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ + 3 \\ \hline \end{array}$

Bullseye Math Facts

Questions

Fill in the outer layer of the bullseye



Mental Math – Counting Back (Up To 20)

1. Circle the higher number on the hundreds chart/number line.
2. Count back by the other number and write down the answer

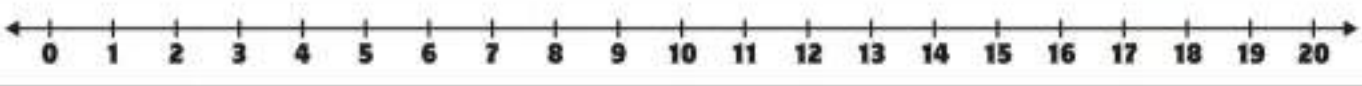
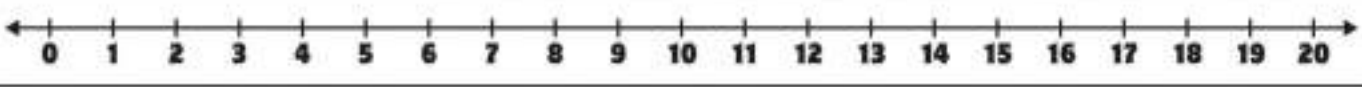
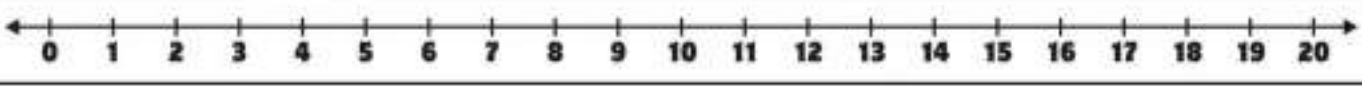
Part 1

Use the chart to answer the question

1) $13 - 5 =$ _____	2) $18 - 6 =$ _____	3) $15 - 3 =$ _____
		
4) $14 - 4 =$ _____	5) $13 - 6 =$ _____	6) $12 - 5 =$ _____
		
7) $18 - 8 =$ _____	8) $17 - 7 =$ _____	9) $19 - 4 =$ _____
		
10) $19 - 9 =$ _____	11) $15 - 6 =$ _____	12) $12 - 8 =$ _____
		

Part 2

Use the number line to find the answer

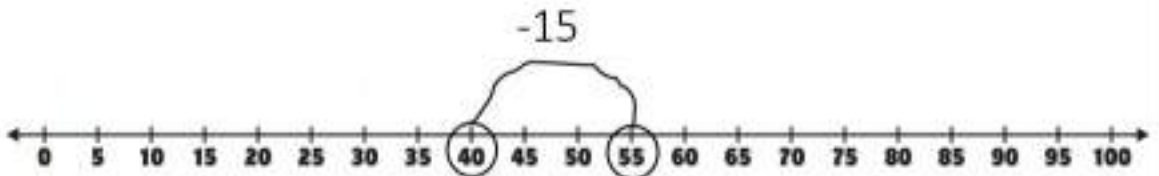
1) $13 - 9 =$ _____

2) $16 - 4 =$ _____

3) $15 - 9 =$ _____


Number Line Subtraction

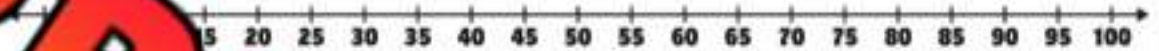
Questions

Use the number line to subtract the numbers below

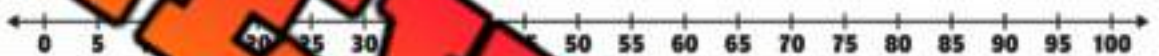
$55 - 15 = \underline{40}$



$60 - 10 = \underline{\quad}$



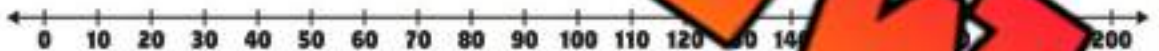
$70 - 30 = \underline{\quad}$



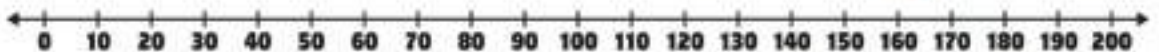
$50 - 35 = \underline{\quad}$



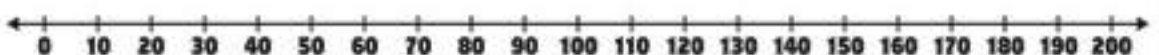
$100 - 20 = \underline{\quad}$



$125 - 25 = \underline{\quad}$



$145 - 55 = \underline{\quad}$



$160 - 45 = \underline{\quad}$



Subtracting – No Borrowing

Questions

Use the standard algorithm to solve the subtraction problems below

$$\begin{array}{r} 53 \\ + 12 \\ \hline \end{array}$$

$$\begin{array}{r} 35 \\ + 14 \\ \hline \end{array}$$

$$\begin{array}{r} 45 \\ + 23 \\ \hline \end{array}$$

$$\begin{array}{r} 39 \\ + 15 \\ \hline \end{array}$$

$$\begin{array}{r} 64 \\ + 40 \\ \hline \end{array}$$

$$\begin{array}{r} 38 \\ + 24 \\ \hline \end{array}$$

$$\begin{array}{r} 38 \\ + 24 \\ \hline \end{array}$$

$$\begin{array}{r} 78 \\ + 24 \\ \hline \end{array}$$

$$\begin{array}{r} 58 \\ + 23 \\ \hline \end{array}$$

$$\begin{array}{r} 25 \\ + 11 \\ \hline \end{array}$$

$$\begin{array}{r} 76 \\ + 35 \\ \hline \end{array}$$

$$\begin{array}{r} 62 \\ + 21 \\ \hline \end{array}$$

$$\begin{array}{r} 56 \\ + 12 \\ \hline \end{array}$$

$$\begin{array}{r} 85 \\ + 24 \\ \hline \end{array}$$

$$\begin{array}{r} 587 \\ + 242 \\ \hline \end{array}$$

$$\begin{array}{r} 632 \\ + 111 \\ \hline \end{array}$$

$$\begin{array}{r} 536 \\ + 320 \\ \hline \end{array}$$

$$\begin{array}{r} 852 \\ + 321 \\ \hline \end{array}$$

$$\begin{array}{r} 637 \\ + 314 \\ \hline \end{array}$$

$$\begin{array}{r} 744 \\ + 331 \\ \hline \end{array}$$

$$\begin{array}{r} 645 \\ + 344 \\ \hline \end{array}$$

$$\begin{array}{r} 354 \\ + 224 \\ \hline \end{array}$$

$$\begin{array}{r} 467 \\ + 440 \\ \hline \end{array}$$

$$\begin{array}{r} 366 \\ + 335 \\ \hline \end{array}$$

$$\begin{array}{r} 535 \\ + 320 \\ \hline \end{array}$$

Subtracting Word Problems – No Borrowing

Questions

Solve the problems below

1) Rachel needs 350 points to get to the next level of her video game. As of now, she has 240 points. How many more points does she need to reach the next level?



2) Sam has \$_____ for a video game system. He bought the system for \$224. How much _____ he has _____



3) A transport driver is 483km away from home. They have driven 230km towards home. How far are they from home now?



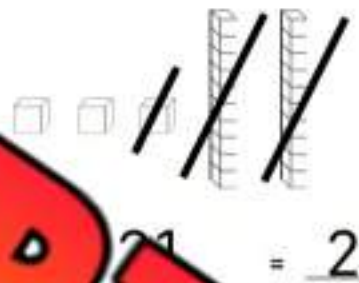
4) Lucas took 789 steps last hour and 452 steps this hour. How many more steps did he take last hour?



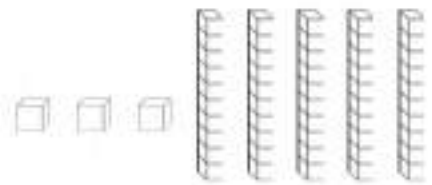
Subtracting Using Base Ten Blocks

Questions

Subtract from the base ten blocks



$$24 - 2 = \underline{\quad}$$



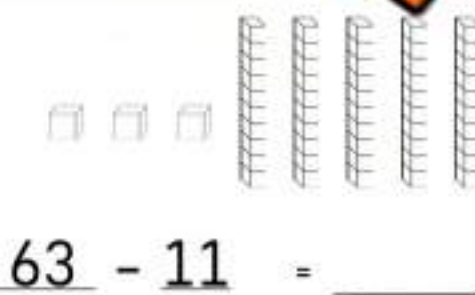
$$53 - 12 = \underline{\quad}$$



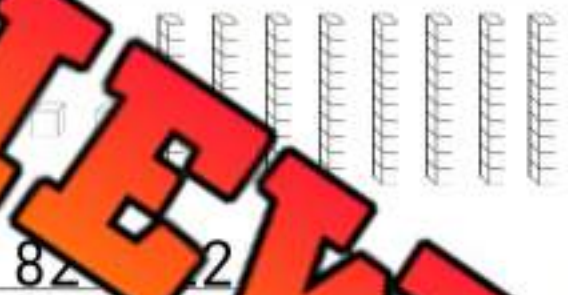
$$35 - 15 = \underline{\quad}$$



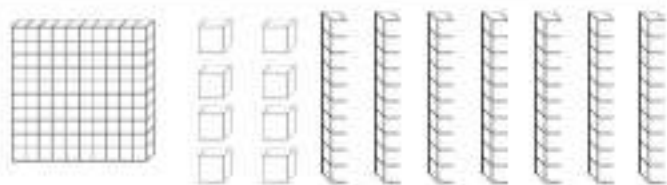
$$46 - 12 = \underline{\quad}$$



$$63 - 11 = \underline{\quad}$$



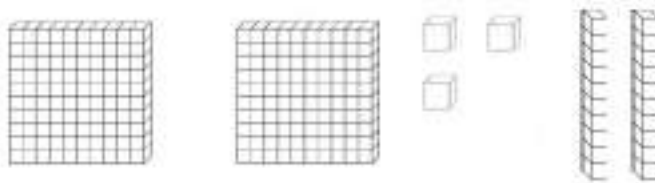
$$82 - 2 = \underline{\quad}$$



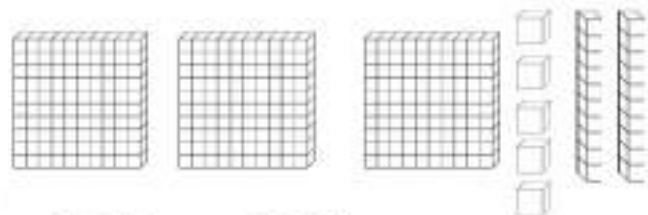
$$178 - 110 = \underline{\quad}$$



$$134 - 120 = \underline{\quad}$$



$$223 - 103 = \underline{\quad}$$



$$325 - 215 = \underline{\quad}$$

Subtraction Word Problems – Borrowing

Questions

Solve the problems below

1) Nicole had \$485 to spend on a bike. She picked one that cost her \$396. How much money does she have leftover?



2) Mike is rowing a boat in a race. After 1 minute of the race, Mike had gone 265m. How many more metres does he need to row?



3) Travis and Kerry had a contest to see who could run the farthest in 5 minutes. Kerry ran 942m and Travis ran 759m. How much farther did Kerry run?



4) Jen is filling up her pool with water. The pool can hold 830 litres of water. She has poured 783L of water into the pool already. How much more water does she need to pour into the pool to fill it up?



Exit Cards

Cut Out Cut out the exit cards below and have students complete them at the end of class

Name: _____

1) $536 - 362$

- 2) John has \$815 in life savings. He spent \$565 on a new bike. How much does he have left?

Name: _____

1) $536 - 362$

- 2) John has \$815 in life savings. He spent \$565 on a new bike. How much does he have left?

Name: _____

1) $536 - 362$

- 2) John has \$815 in life savings. He spent \$565 on a new bike. How much does he have left?

Name: _____

1) $536 - 362$

- 2) John has \$815 in life savings. He spent \$565 on a new bike. How much does he have left?

Title: "Subtraction Showdown"**Objective**

What are we learning about?

To enhance students' subtraction skills by engaging the whole class in simultaneous problem-solving, promoting accuracy and speed under pressure.

Materials

What you will need for the activity.

- A deck of number cards ranging from 1 to 999
- Small whiteboards and markers for each pair of students
- A stopwatch
- A bell or buzzer (optional, for signaling)

**Instructions**

How to complete the activity

1. Shuffle the deck of number cards and place it at the front of the classroom.
2. Pair up the students and distribute a whiteboard and marker to each pair.
3. One student from a selected pair draws two cards from the front of the class.
4. The student displays the numbers to the class, ensuring their pairs see the numbers clearly.
5. All pairs then work together to determine which number is larger and subtract the smaller number from the larger to avoid negative results.
6. Start the timer, giving students one minute to solve the problem and write their answer on the whiteboard.
7. At the end of the minute, signal with a bell or say "three, two, one, show!" to have all pairs flip their whiteboards simultaneously.
8. Check the answers quickly, and award points to pairs who got the correct answer.
9. Rotate the role of drawing cards so each student gets a turn to pick the numbers.
10. Repeat the process, keeping the activity lively and engaging by maintaining a brisk pace.

Name: _____

125

Curriculum Connection
N2

Cards

Cut out the cards below

783 276 498 642 157 833

32 706 105 514 889 462

15 328 943 356 691 875

623 210 768 403 95

471 15 791 247 600 209

826 411 537 714 550 111

36 732 20 388 417 16

259 640 301 915 507 280

754 160 488 911 812 610

48 719 846 104 161 379

PREVIEW

Adding and Subtracting Word Problems

Questions

Solve the following questions using both addition and subtraction

1) Will and Ben collected valuable rocks last summer. Will collected 112 rocks and Ben collected 120 rocks. How many total rocks do they have?



Bonus: they also collected 100 rocks that were not valuable. How many rocks were valuable?

2) Adam and Lindsay went to the mall to buy a new gaming system. Adam brought \$128 and Lindsay brought \$141. The gaming system cost \$269. How much money do they have left?



3) Becky's car is full of gas and can drive 500km on a full tank. She drove 230km to Ottawa on one weekend and then 240km to Toronto the next weekend. How many more km can she drive?



Math Facts – Subtract By 8 and 9**Questions**

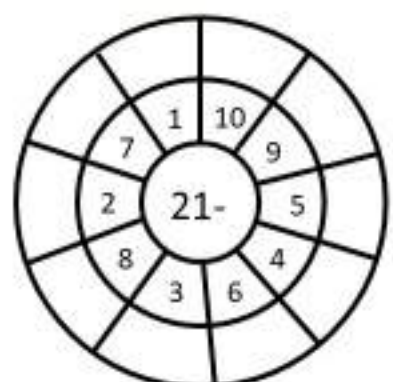
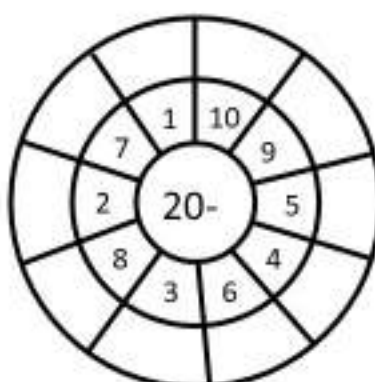
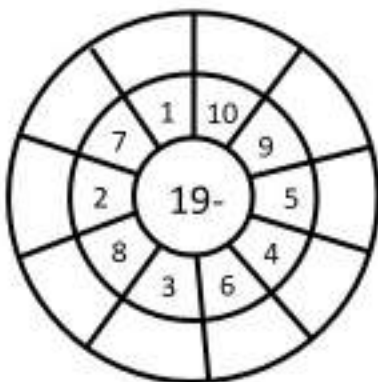
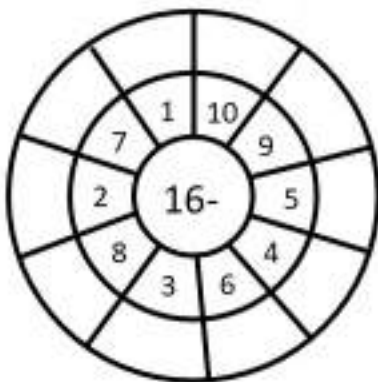
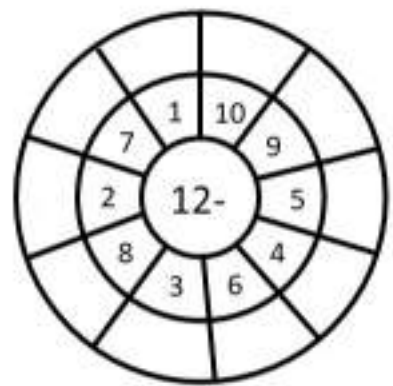
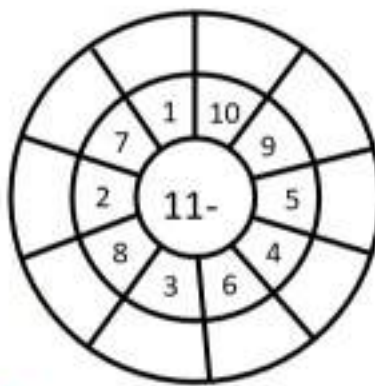
Solve as many problems as you can before the time runs out!

$\begin{array}{r} 12 \\ - 8 \\ \hline \end{array}$	$\begin{array}{r} 9 \\ - 9 \\ \hline \end{array}$	$\begin{array}{r} 8 \\ - 8 \\ \hline \end{array}$	$\begin{array}{r} 14 \\ - 9 \\ \hline \end{array}$	$\begin{array}{r} 13 \\ - 9 \\ \hline \end{array}$	$\begin{array}{r} 10 \\ - 8 \\ \hline \end{array}$
$\begin{array}{r} 14 \\ - 9 \\ \hline \end{array}$	$\begin{array}{r} 14 \\ - 8 \\ \hline \end{array}$	$\begin{array}{r} 10 \\ - 8 \\ \hline \end{array}$	$\begin{array}{r} 10 \\ - 8 \\ \hline \end{array}$	$\begin{array}{r} 13 \\ - 9 \\ \hline \end{array}$	$\begin{array}{r} 13 \\ - 9 \\ \hline \end{array}$
$\begin{array}{r} 11 \\ - 8 \\ \hline \end{array}$	$\begin{array}{r} 13 \\ - 9 \\ \hline \end{array}$	$\begin{array}{r} 11 \\ - 9 \\ \hline \end{array}$	$\begin{array}{r} 14 \\ - 8 \\ \hline \end{array}$	$\begin{array}{r} 8 \\ - 8 \\ \hline \end{array}$	$\begin{array}{r} 12 \\ - 7 \\ \hline \end{array}$
$\begin{array}{r} 14 \\ - 9 \\ \hline \end{array}$	$\begin{array}{r} 13 \\ - 8 \\ \hline \end{array}$	$\begin{array}{r} 9 \\ - 8 \\ \hline \end{array}$	$\begin{array}{r} 10 \\ - 9 \\ \hline \end{array}$	$\begin{array}{r} 10 \\ - 8 \\ \hline \end{array}$	$\begin{array}{r} 10 \\ - 8 \\ \hline \end{array}$
$\begin{array}{r} 12 \\ - 8 \\ \hline \end{array}$	$\begin{array}{r} 13 \\ - 8 \\ \hline \end{array}$	$\begin{array}{r} 15 \\ - 9 \\ \hline \end{array}$	$\begin{array}{r} 14 \\ - 9 \\ \hline \end{array}$	$\begin{array}{r} 12 \\ - 8 \\ \hline \end{array}$	$\begin{array}{r} 11 \\ - 8 \\ \hline \end{array}$
$\begin{array}{r} 12 \\ - 9 \\ \hline \end{array}$	$\begin{array}{r} 10 \\ - 9 \\ \hline \end{array}$	$\begin{array}{r} 11 \\ - 8 \\ \hline \end{array}$	$\begin{array}{r} 13 \\ - 8 \\ \hline \end{array}$	$\begin{array}{r} 13 \\ - 9 \\ \hline \end{array}$	$\begin{array}{r} 11 \\ - 9 \\ \hline \end{array}$

Bullseye Subtraction Facts

Questions

Fill in the outer layer of the bullseye



Adding and Subtracting Quiz

Part 1

Use the standard algorithm to solve the problems below

1)	Hun.	Tens	Ones
			3
+			
<hr/>			

2)	Hun.	Tens	Ones
	4	5	2
+	2	3	5
<hr/>			

3)	Hun.	Tens	Ones
	6	2	5
+	3	5	4
<hr/>			

4)	Hun.	Tens	Ones
	3	4	5
+	6	2	6
<hr/>			

5)	Hun.	Tens	Ones
	5	2	4
+	2	5	6
<hr/>			

6)	Hun.	Tens	Ones
	4	5	0
+	3	4	9
<hr/>			

7)	Hun.	Tens	Ones
	6	5	4
-	5	1	3
<hr/>			

8)	Hun.	Tens	Ones
	8	5	3
-	4	4	1
<hr/>			

9)	Hun.	Tens	Ones
	7	6	8
-	5	0	2
<hr/>			

	Hun.	Tens	Ones
	8	4	8
-	1	5	7

	Hun.	Tens	Ones
	4	7	3
-	1	2	6

	Hun.	Tens	Ones
	5	3	8
-	3	4	5

Practice the following questions

1) Mason had \$500 and he spent \$161 on new skates. How much money does he have left?



2) Steve has collected 436 hockey cards. He gives 100 cards to his younger brother. How many cards does he have left?



3) Claire has 432 points in a video game. She got 139 more points when she beat the next level. How many points does she have now?



4) Hudson played video games for 125 minutes on Monday, 104 minutes on Tuesday, and 138 minutes on Wednesday. How many total minutes did he play video games?

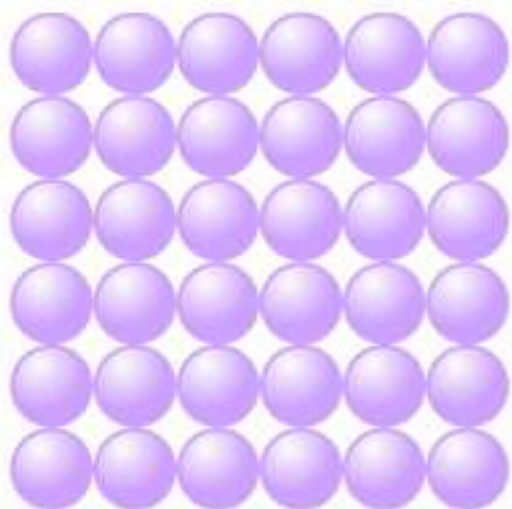




$0 \cdot 7 =$	0
$1 \cdot 7 =$	7
$2 \cdot 7 =$	14
$3 \cdot 7 =$	21
$4 \cdot 7 =$	28
$5 \cdot 7 =$	35
$6 \cdot 7 =$	42
$7 \cdot 7 =$	49
$8 \cdot 7 =$	56
$9 \cdot 7 =$	63
$10 \cdot 7 =$	70
$11 \cdot 7 =$	77

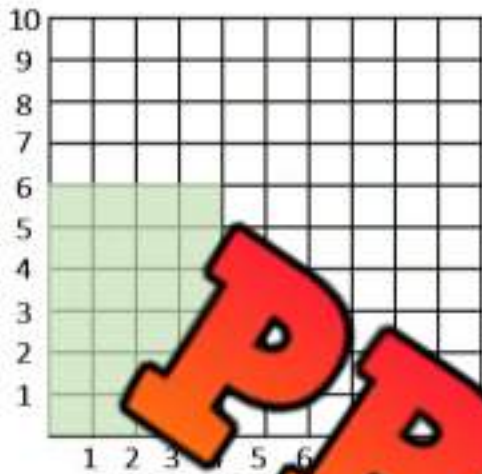
N.3

Students analyze and apply strategies for multiplication and division within 100.

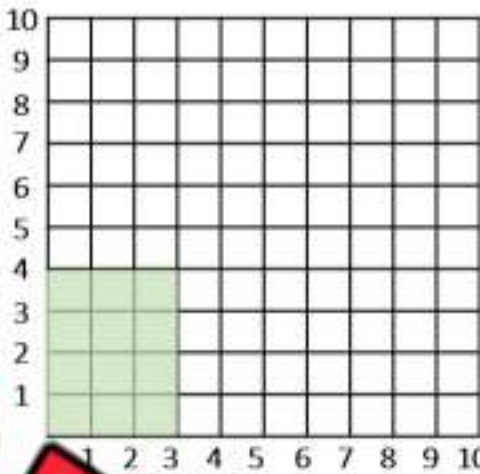


Multiplication – Arrays**Questions**

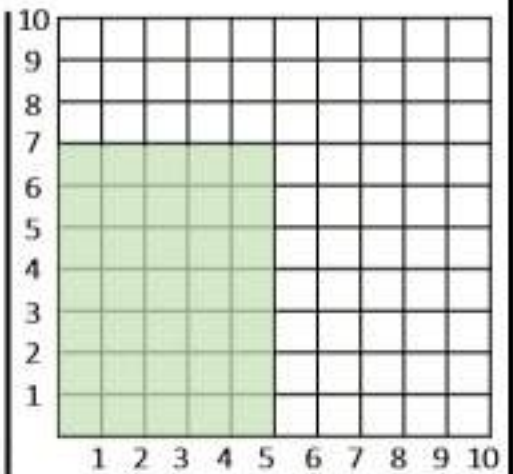
How much is shaded in? Answer the questions below.



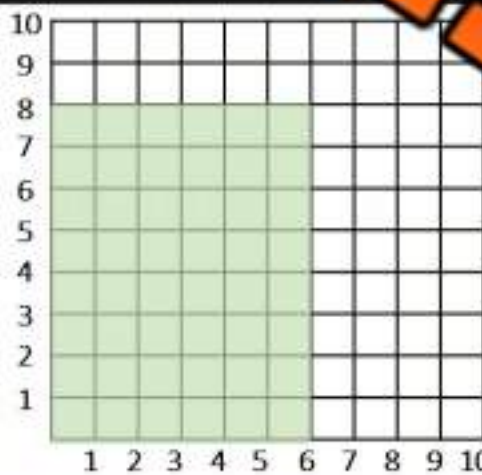
$6 \times 4 = \underline{\quad}$



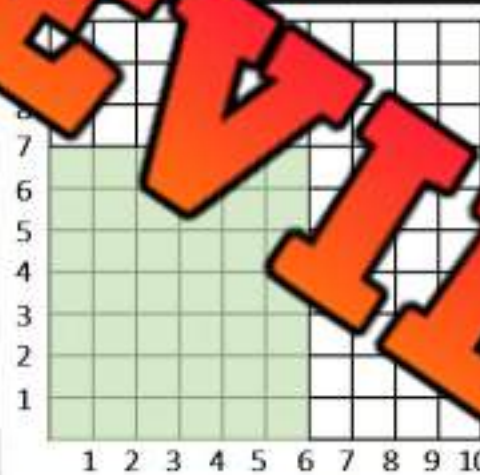
$4 \times 3 = \underline{\quad}$



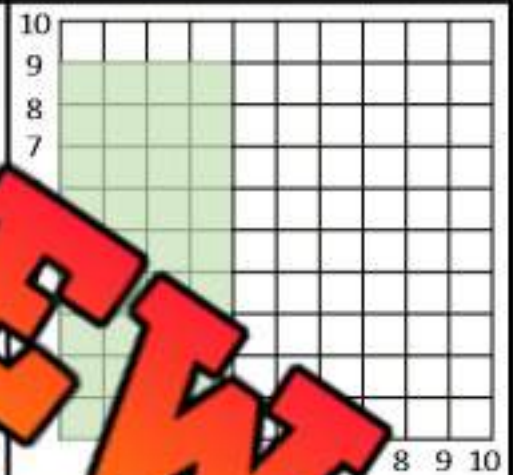
$7 \times 5 = \underline{\quad}$



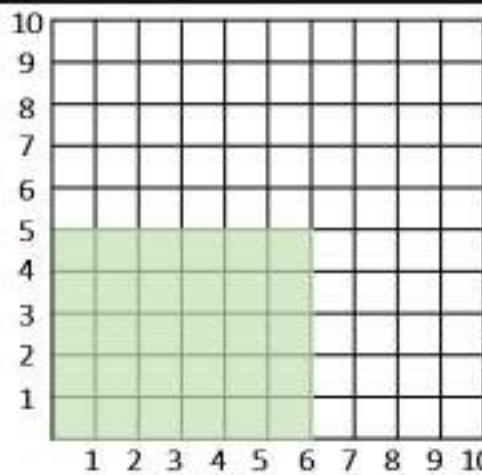
$8 \times 6 = \underline{\quad}$



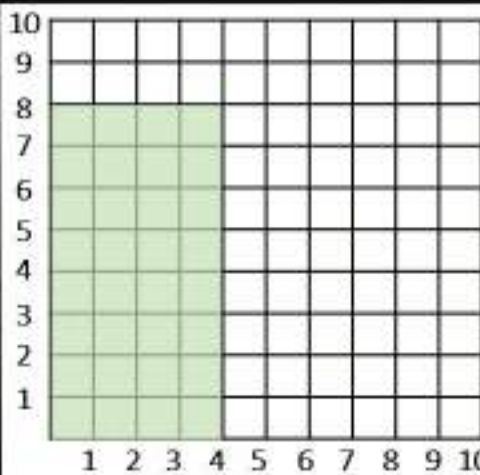
$7 \times 6 = \underline{\quad}$



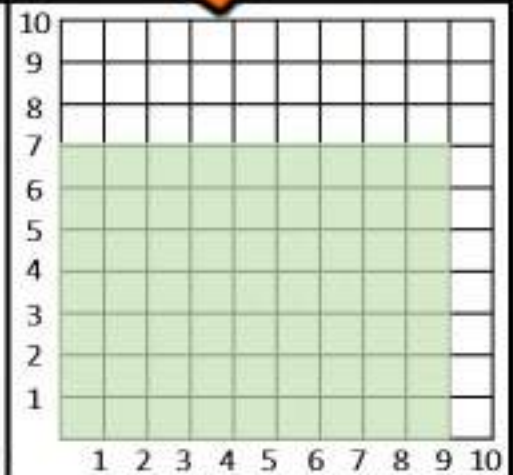
$9 \times 4 = \underline{\quad}$



$5 \times 6 = \underline{\quad}$



$8 \times 4 = \underline{\quad}$



$7 \times 9 = \underline{\quad}$

Number Line Multiplication – Repeated Addition

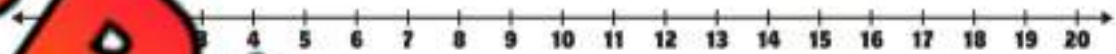
Questions

Fill in the blanks below

$3 \times 3 = 9$



$5 \times \underline{\quad} = \underline{\quad}$



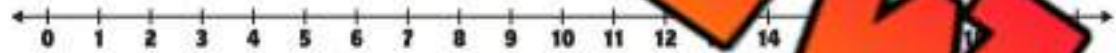
$4 \times 4 = \underline{\quad}$



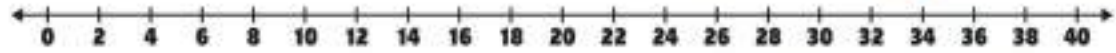
$6 \times 3 = \underline{\quad}$



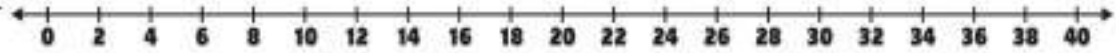
$2 \times 9 = \underline{\quad}$



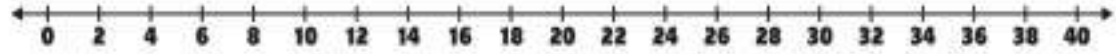
$4 \times 8 = \underline{\quad}$



$10 \times 4 = \underline{\quad}$



$4 \times 6 = \underline{\quad}$



Multiplication By 0 and 1

Questions

Solve the multiplication equations below

Multiplication x 0	Multiplication x 1
$0 \times 0 =$	$0 \times 1 =$
$1 \times 0 =$	$1 \times 1 =$
$2 \times 0 =$	$2 \times 1 =$
$3 \times 0 =$	$3 \times 1 =$
$4 \times 0 =$	$4 \times 1 =$
$5 \times 0 =$	$5 \times 1 =$
$6 \times 0 =$	$6 \times 1 =$
$7 \times 0 =$	$7 \times 1 =$
$8 \times 0 =$	$8 \times 1 =$
$9 \times 0 =$	$9 \times 1 =$
$10 \times 0 =$	$10 \times 1 =$
$100 \times 0 =$	$100 \times 1 =$
$1000 \times 0 =$	$1000 \times 1 =$

PREVIEW

Mental Math - Multiplication – Skip Counting

Directions:

1. Decide which number is easier to count by
2. Count by that number the other number amount of times

$$7 \times 5 = ?$$

1 2 3 4 5 6 7

5, 10, 15, 20, 25, 30, 35



PREVIEW

8

9×3

6×5

7×6

9×5

4×9

8×9

Mental Math – Multiplication – Doubling and Halving

Directions

1. Halve one of the numbers and double the other number (2 options)
2. Multiply the new numbers together

Example



$$\begin{array}{ccc}
 & 6 \times 4 & \\
 \text{Option 1: } 12 \times 2 & \text{or Option 2: } 3 \times 8 & \\
 \downarrow & & \downarrow \\
 24 & & 24
 \end{array}$$



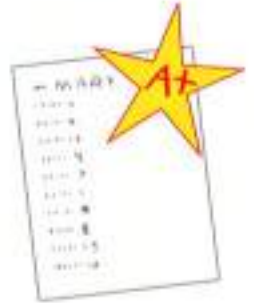
4×10	10×4
8×4	5×6
3×8	7×4
10×6	6×8
5×4	20×4

Mental Math – Multiplication – Doubling and Halving**Directions**

1. Halve one of the numbers to make the equation simpler
2. Solve the equation
3. Double the product (answer)

Example

$$\begin{array}{l} 8 \times 4 \\ 4 \times 4 = 16 \\ 16 \times 2 = 32 \end{array}$$



	3×8
6×5	10×6
6×4	$4 \times$
3×6	5×8
10×10	7×4

Exit Cards

Cut Out

Cut out the exit cards below and have students complete them at the end of class

Name: _____

Use a mental math strategy to solve these questions.

a) 14×6

b) 15×4

Name: _____

Use a mental math strategy to solve these questions.

a) 14×6

b) 15×4

Name: _____

Use a mental math strategy to solve these questions.

a) 14×6

b) 15×4

Name: _____

Use a mental math strategy to solve these questions.

a) 14×6

b) 15×4

Multiplication Practice – 2s, 3s, 5s**Questions**

Solve as many problems as you can before the time runs out!

$$\begin{array}{r} 3 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 1 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 0 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 0 \\ \times 1 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ \times 0 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ \times 10 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} 1 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 1 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ \times 10 \\ \hline \end{array}$$

$$\begin{array}{r} 0 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ \times 0 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ \times 8 \\ \hline \end{array}$$

PREVIEW

Multiplication Chart - Patterns



Questions

Fill in the multiplication table below

x	1	2	3	4	5
1					
2					
3					
4					
5					

PREVIEW

Questions

Answer the questions and colour the chart based on the answers

3×3	5×5	4×2	3×2
1×4	2×1	1×5	3×1
2×5	5×4	3×4	4×4



Multiplication Chart - Patterns

**Questions**

Fill in the multiplication table below

x	1	2	3	4	5	6	7	8	9	10
1			3		5		7		9	10
2		2		8		12		16		
3			6	9		18			27	30
4	4	8		16		28			36	
5		10	15		20					
6	6		18		30					60
7		14		28	35	42				63
8	8	16		32			56	64		80
9			27			54			81	90
10	10	20		40			70		90	

Multiplication Chart - Patterns

x	1	2	3	4	5	6	7	8	9	10
1	1	2	3	4	5	6	7	8	9	10
2	2	4	6	8	10	12	14	16	18	20
3	3	6	9	12	15	18	21	24	27	30
4	4	8	12	16	20	24	28	32	36	40
5	5	10	15	20	25	30	35	40	45	50
6	6	12	18	24	30	36	42	48	54	60
7	7	14	21	28	35	42	49	56	63	70
8	8	16	24	32	40	48	56	64	72	80
9	9	18	27	36	45	54	63	72	81	90
10	10	20	30	40	50	60	70	80	90	100

Questions

Follow the instructions below

- 1) Count by 2's and colour the numbers
- 2) Count by 3's and colour the numbers
- 3) Count by 4's and colour the numbers
- 4) Count by 5's and colour the numbers



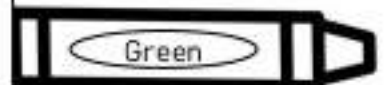
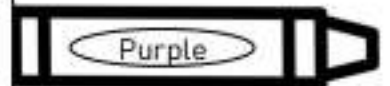
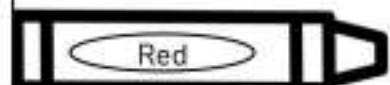
Multiplication Chart – Patterns

x	1	2	3	4	5	6	7	8	9	10
1	1	2	3	4	5	6	7	8	9	10
2	2	4	6	8	10	12	14	16	18	20
3	3	6	9	12	15	18	21	24	27	30
4	4	8	12	16	20	24	28	32	36	40
5	5	10	15	20	25	30	35	40	45	50
6	6	12	18	24	30	36	42	48	54	60
7	7	14	21	28	35	42	49	56	63	70
8	8	16	24	32	40	48	56	64	72	80
9	9	18	27	36	45	54	63	72	81	90
10	10	20	30	40	50	60	70	80	90	100

Questions

Answer the questions and colour the chart based on the answers

3×3	5×5	7×6	9×2
2×4	7×2	5×7	6×6
4×5	10×9	8×8	9×7
4×3	9×3	8×6	7×7



Multiplication – Word Problems

Questions

Draw a picture to represent the problem and then solve



1) Brian buys 4 packages of hot dog buns. Each package has 6 buns in it. How many hot dog buns did he buy?

Answer

Picture

2) Sheldon walks 3 km to school. He went to school 5 times this week. How many km did he walk this week?

Answer

Picture

Use a small square to represent a km

3) Hanna scored 4 baskets in each of her last 7 games. How many baskets did she score in all 7 games?



Answer

Picture

Task Cards: Multiplication Facts

Objective

What are we learning about?

To solidify understanding and recall of multiplication facts between 1 and 5 through solving word problems and equations, working collaboratively with a partner in a structured task card format.

Materials

What you will need for the activity.

- Task cards
- Separate sheet of paper for answers
- Pencils



Instructions

How to complete the activity

1. Cut out the 30 task cards.
2. Distribute a set of all 30 task cards to each pair or small groups. Ensure each pair has their cards shuffled to start.
3. Provide each pair with a recording sheet. The recording sheet should have numbers 1 to 30 where students can write their answers.
4. Explain to students that they will work with their partner to solve each task card. They can discuss and agree on answers before writing them down.
5. Allow the pairs to begin working through the task cards. They can solve them in any order they prefer.
6. If using a timer, set it for 30 minutes to encourage focus and manage classroom time effectively.
7. Once the time is up or all pairs have completed their task cards, review the answers together as a class. Discuss any discrepancies and provide correct solutions.
8. Collect the recording sheets to assess understanding and give individual feedback.

Task Cards

Cut out the task cards below

Task Card 1:

Calculate:
 $1 \times 1 = \underline{\quad}$

Task Card 6:

Solve for y:
 $4 \times y = 12$

Task Card 2:

How many groups of 2 are there in 4?

Task Card 7:

Calculate:
 $2 \times 2 = \underline{\quad}$

Task Card 3:

Solve:
 $5 \times 5 = \underline{\quad}$

Task Card 8:

There are 4 rows of 4 chairs in a room. How many chairs are there in total?

Task Card 4:

If you have 5 bags with 3 marbles each, how many marbles do you have in total?

Task Card 9:

Solve:
 $4 \times 5 = \underline{\quad}$

Task Card 5:

Find the product:
 $3 \times 3 = \underline{\quad}$

Task Card 10:

A baker bakes 5 trays of cookies with 2 cookies on each tray. How many cookies does he bake?

Task Cards

Cut out the task cards below

Task Card 21:

Calculate:
 $2 \times 1 = \underline{\quad}$

Task Card 26:

There are 2 teams of 4 players each. How many players are there in total?

Task Card 22:

A gardener plants 4 rows of 5 trees each. How many trees does she plant?

Task Card 27:

Solve:
 $3 \times 2 = \underline{\quad}$

Task Card 23:

Solve:
 $1 \times 3 = \underline{\quad}$

Task Card 28:

Solve:
 $5 \times 2 = \underline{\quad}$

Task Card 24:

Solve:
 $1 \times \underline{\quad} = 3$

Task Card 29:

Calculate:
 $1 \times 4 = \underline{\quad}$

Task Card 25:

Calculate:
 $5 \times 1 = \underline{\quad}$

Task Card 30:

A classroom has 5 groups of 3 students each. How many students are there altogether?

PREVIEW

Name: _____

174

Curriculum Connection
N3

Task Cards: Multiplication

Answers

Record your answers below

1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	

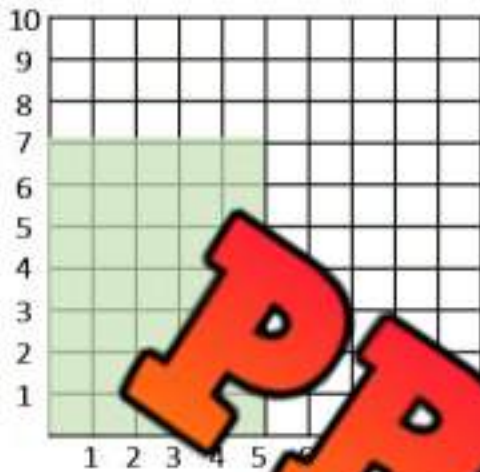
16	
17	
18	
19	
20	
21	
22	
23	
24	
25	
26	
27	
28	
29	
30	

PREVIEW

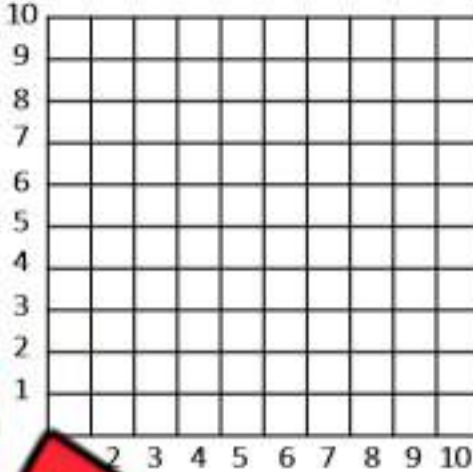
Division – Arrays

Questions

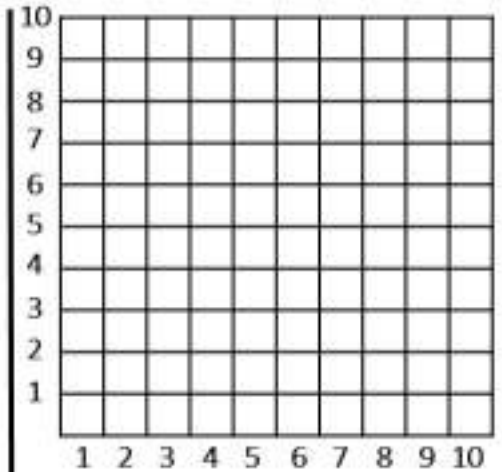
Shade in the arrays using the table. Answer the questions below



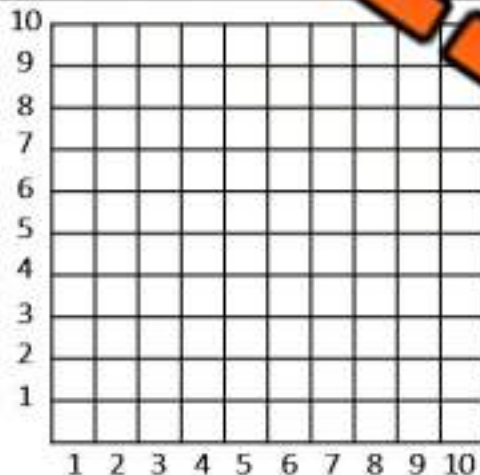
$35 \div 7 = \underline{\quad}$



$7 = \underline{\quad}$



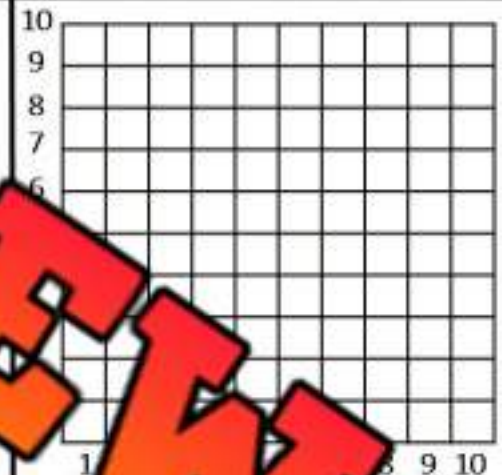
$18 \div 6 = \underline{\quad}$



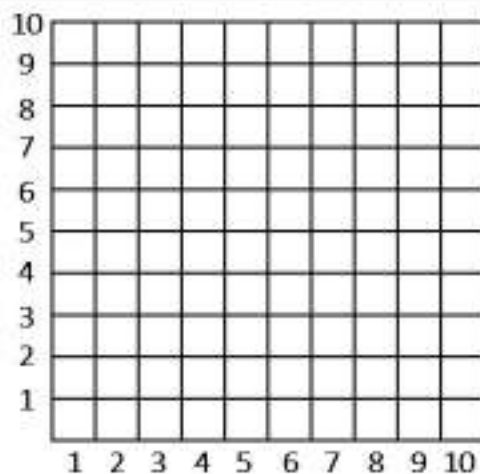
$45 \div 5 = \underline{\quad}$



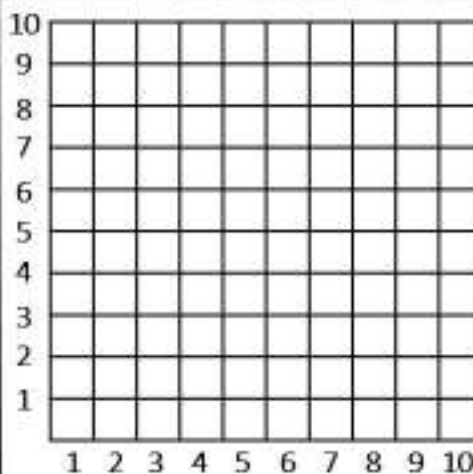
$80 \div 10 = \underline{\quad}$



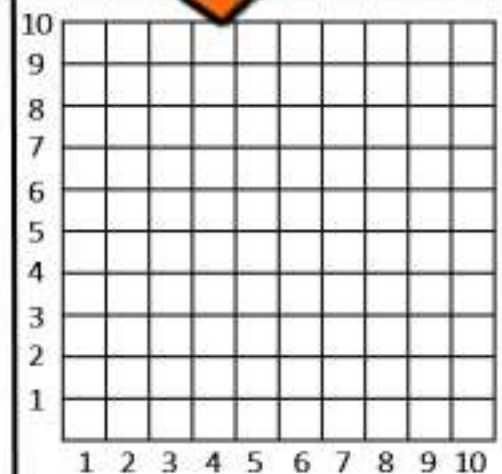
$24 \div \underline{\quad} = \underline{\quad}$



$15 \div 3 = \underline{\quad}$



$32 \div 4 = \underline{\quad}$



$50 \div 5 = \underline{\quad}$

Division – Equal Sharing

Questions

If you were sharing the objects below, how would you split them up equally? Answer the questions below.

Objects	Questions	
	How many objects are there?	
	How many groups did you make?	
	How many are in each group?	
	Write the division sentence.	

Objects	Questions	
	How many objects are there?	
	How many groups did you make?	
	How many are in each group?	
	Write the division sentence.	

Objects	Questions	
	How many objects are there?	
	How many groups did you make?	
	How many are in each group?	
	Write the division sentence.	

Division – Equal Sharing

Questions

Friends are sharing the treats below. Answer the questions.



How many donuts are there?

How many groups do you need to share the donuts?

How many donuts will be in each group?

Write the division sentence.

How many donuts will each person get?



How many cupcakes are there?

How many groups do you need to share the cupcakes?

How many cupcakes will be in each group?

Write the division sentence.

How many cupcakes will each person get?

Mental Math – Division – Skip Counting

Directions

1. Count up by the smaller number to the larger number
2. The answer is how many times you counted

$$91 \div 7 = ?$$

1 2 3 4 5 6 7 8 9 10 11 12 13
7, 14, 21, 28, 35, 42, 49, 56, 63, 70, 77, 84, 91

Answer = 13



$$40 \div 5$$

$$16 \div 4$$

$$42 \div 6$$

$$30 \div 5$$

$$63 \div 7$$

$$32 \div 8$$

$$48 \div 6$$

Division Practice – 9 and 10**Questions**

Solve as many problems as you can before the time runs out!

36

$$\begin{array}{r} 50 \\ \div 10 \\ \hline \end{array}$$

$$\begin{array}{r} 36 \\ \div 9 \\ \hline \end{array}$$

$$\begin{array}{r} 20 \\ \div 10 \\ \hline \end{array}$$

$$\begin{array}{r} 30 \\ \div 10 \\ \hline \end{array}$$

$$\begin{array}{r} 27 \\ \div 9 \\ \hline \end{array}$$

$$\begin{array}{r} 70 \\ \div 10 \\ \hline \end{array}$$

$$\begin{array}{r} 50 \\ \div 10 \\ \hline \end{array}$$

$$\begin{array}{r} 50 \\ \div 10 \\ \hline \end{array}$$

$$\begin{array}{r} 90 \\ \div 9 \\ \hline \end{array}$$

$$\begin{array}{r} 90 \\ \div 10 \\ \hline \end{array}$$

$$\begin{array}{r} 81 \\ \div 9 \\ \hline \end{array}$$

$$\begin{array}{r} 90 \\ \div 9 \\ \hline \end{array}$$

$$\begin{array}{r} 72 \\ \div 9 \\ \hline \end{array}$$

$$\begin{array}{r} 100 \\ \div 10 \\ \hline \end{array}$$

$$\begin{array}{r} 60 \\ \div 10 \\ \hline \end{array}$$

$$\begin{array}{r} 81 \\ \div 9 \\ \hline \end{array}$$

$$\begin{array}{r} 18 \\ \div 9 \\ \hline \end{array}$$

$$\begin{array}{r} 27 \\ \div 9 \\ \hline \end{array}$$

$$\begin{array}{r} 45 \\ \div 9 \\ \hline \end{array}$$

$$\begin{array}{r} 40 \\ \div 10 \\ \hline \end{array}$$

$$\begin{array}{r} 70 \\ \div 10 \\ \hline \end{array}$$

$$\begin{array}{r} 36 \\ \div 9 \\ \hline \end{array}$$

$$\begin{array}{r} 27 \\ \div 9 \\ \hline \end{array}$$

$$\begin{array}{r} 40 \\ \div 10 \\ \hline \end{array}$$

$$\begin{array}{r} 100 \\ \div 10 \\ \hline \end{array}$$

$$\begin{array}{r} 45 \\ \div 9 \\ \hline \end{array}$$

$$\begin{array}{r} 36 \\ \div 9 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ \div 10 \\ \hline \end{array}$$

$$\begin{array}{r} 20 \\ \div 10 \\ \hline \end{array}$$

$$\begin{array}{r} 18 \\ \div 9 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ \div 9 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ \div 10 \\ \hline \end{array}$$

$$\begin{array}{r} 36 \\ \div 9 \\ \hline \end{array}$$

$$\begin{array}{r} 45 \\ \div 9 \\ \hline \end{array}$$

$$\begin{array}{r} 80 \\ \div 10 \\ \hline \end{array}$$

Multiplication and Division – Total/Groups/Size of Group**Part 1**

Determine the missing group size/number of groups/total

$\underline{\quad 4 \quad} \times 5 = 20$	$2 \times 3 = \underline{\quad}$	$2 \times \underline{\quad} = 10$
$5 \times \underline{\quad} = 25$	$\underline{\quad} \times 10 = 30$	$10 \times 5 = \underline{\quad}$
$\underline{\quad} \times 4 = \underline{\quad}$	$4 \times 10 = \underline{\quad}$	$5 \times \underline{\quad} = 25$
$7 \times 2 = \underline{\quad}$	$\underline{\quad} \times 2 = 20$	$\underline{\quad} \times 9 = 45$
$7 \times \underline{\quad} = 70$	$2 \times \underline{\quad} = \underline{\quad}$	$2 \times \underline{\quad} = 18$

Part 2

Determine the missing group size/number of groups/total

$\underline{\quad 12 \quad} \div 2 = 6$	$10 \div 2 = \underline{\quad}$	
$10 \div \underline{\quad} = 5$	$\underline{\quad} \div 2 = 6$	$10 \div 5 = \underline{\quad}$
$\underline{\quad} \div 10 = 4$	$50 \div 5 = \underline{\quad}$	$30 \div \underline{\quad} = 3$
$15 \div 5 = \underline{\quad}$	$\underline{\quad} \div 2 = 5$	$\underline{\quad} \div 10 = 6$
$90 \div \underline{\quad} = 10$	$40 \div 10 = \underline{\quad}$	$15 \div \underline{\quad} = 5$

Pre-Algebra – Balancing Multiplication Equations

Balancing equations means both sides of the equal sign must be the same.

$$\begin{array}{c} 15 \\ \swarrow \searrow \\ 5 \times \boxed{3} = 15 \end{array}$$

Examples:

$$\begin{array}{c} 6 \\ \swarrow \searrow \\ \boxed{2} \times 3 = 6 \end{array}$$

Questions

Fill in the missing number to balance the equation

1)

$$\boxed{} \times 3 = 15$$

2) $10 \times 3 =$

$$\boxed{}$$

3) $10 \times$

$$\boxed{} = 10$$

4) $3 \times$

$$\boxed{} = 6$$

5)

$$\boxed{} \times 5 = 25$$

6)

$$\boxed{} \times 9 = 45$$

7) $5 \times 10 =$

$$\boxed{}$$

8) $2 \times$

$$\boxed{} = 20$$

9) $5 \times$

$$\boxed{} = 20$$

10) $10 \times 10 =$

$$\boxed{}$$

11) $2 \times$

$$\boxed{} = 8$$

12) $3 \times 2 =$

$$\boxed{}$$

13) $10 \times$

$$\boxed{} = 60$$

14) $2 \times 9 =$

$$\boxed{}$$

Pre-Algebra – Balancing Division Equations

Balancing equations means both sides of the equal sign must be the same.

$$\begin{array}{c} 5 \\ \swarrow \quad \searrow \\ 15 \div 3 = \boxed{5} \end{array}$$

Examples:

$$\begin{array}{c} 5 \\ \swarrow \quad \searrow \\ \boxed{10} \div 2 = 5 \end{array}$$

Questions

Fill in the missing number to balance the equation

1)

$2) 6 \div 3 = \boxed{}$

3) $10 \div \boxed{} =$

$4) 6 \div \boxed{} = 2$

5)

$\boxed{} \div 5 = 5$

6)

$\boxed{} \div 2 =$

7)

$5 \div 1 = \boxed{}$

8)

$20 \div \boxed{} = 4$

9)

$15 \div \boxed{} = 3$

10)

$10 \div 10 = \boxed{}$

11)

$25 \div \boxed{} = 5$

12)

$30 \div 6 = \boxed{}$

13)

$10 \div \boxed{} = 2$

14)

$18 \div 2 = \boxed{}$

Multiplication and Division Quiz

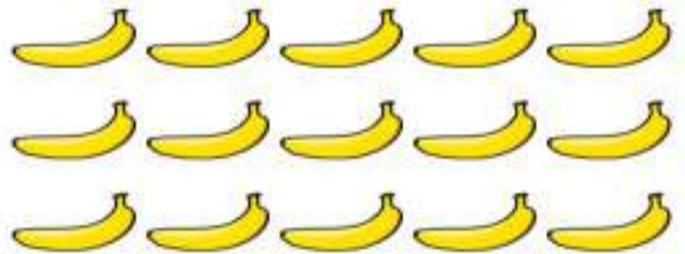
Part 1

Fill in the blanks with the addition and multiplication equations



$$\underline{\quad} + \underline{\quad} = \underline{\quad}$$

$$\underline{\quad} \times \underline{\quad} = \underline{\quad}$$



$$\underline{\quad} + \underline{\quad} + \underline{\quad} = \underline{\quad}$$

$$\underline{\quad} \times \underline{\quad} = \underline{\quad}$$

Part 2

Use repeated addition to answer the questions

$3 \times 5 = \underline{\quad}$



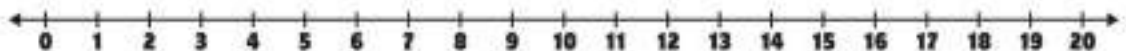
$9 \times 2 = \underline{\quad}$



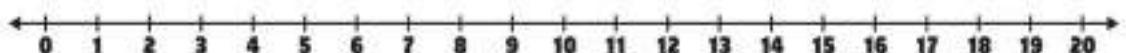
Part 3

Use repeated subtraction to find the answer

$12 \div 3 = \underline{\quad}$

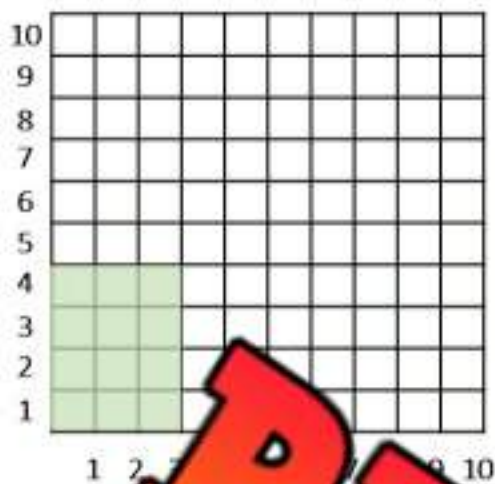


$15 \div 5 = \underline{\quad}$

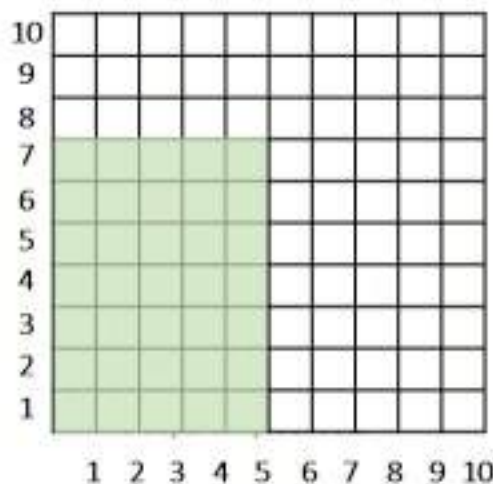


Part 4

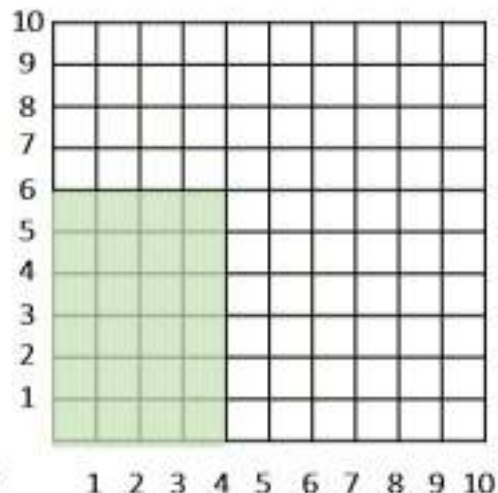
How much is shaded in? Answer the questions below.



$$4 \times 4 = \underline{\hspace{2cm}}$$



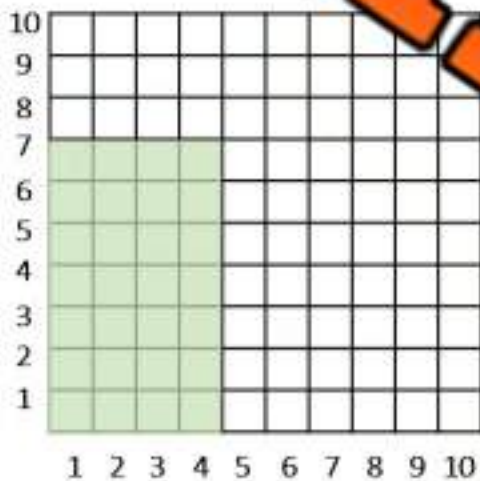
$$7 \times 5 = \underline{\hspace{2cm}}$$



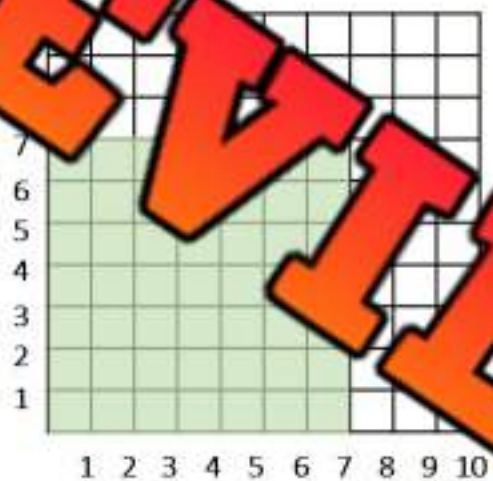
$$4 \times 6 = \underline{\hspace{2cm}}$$

Part 5

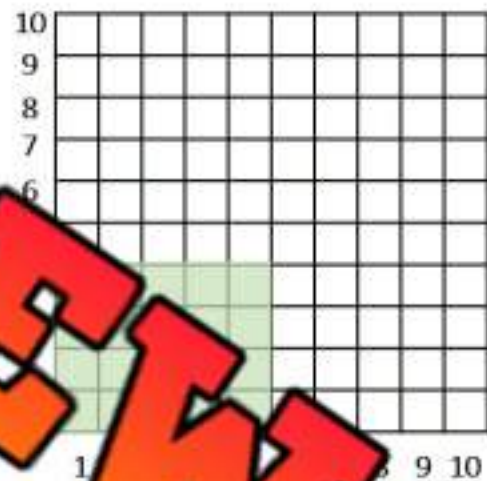
How much is shaded in? How is the shaded area divided?



$$28 \div 4 = \underline{\hspace{2cm}}$$



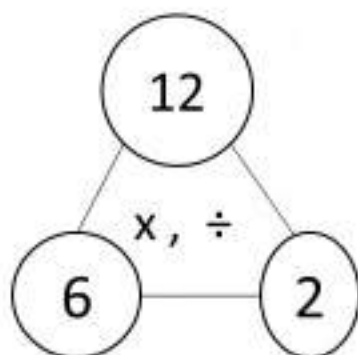
$$49 \div 7 = \underline{\hspace{2cm}}$$



$$58 \div 2 = \underline{\hspace{2cm}}$$

Part 6

Investigate the relationship between multiplication and division

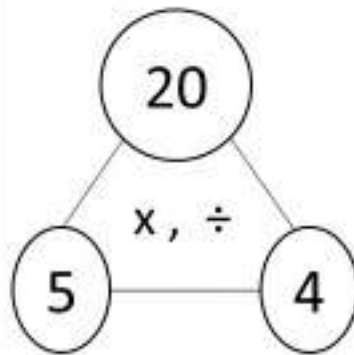


$$\underline{\hspace{1cm}} \times \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$$

$$\underline{\hspace{1cm}} \times \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$$

$$\underline{\hspace{1cm}} \div \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$$

$$\underline{\hspace{1cm}} \div \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$$

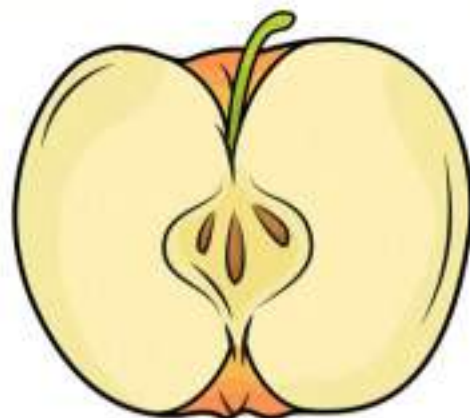
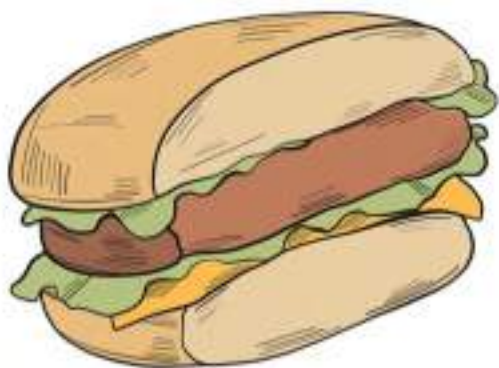


$$\underline{\hspace{1cm}} \times \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$$

$$\underline{\hspace{1cm}} \times \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$$

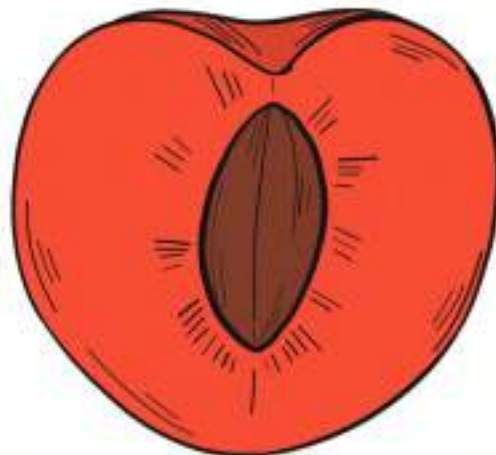
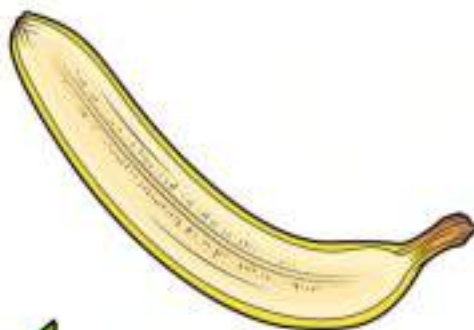
$$\underline{\hspace{1cm}} \div \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$$

$$\underline{\hspace{1cm}} \div \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$$



N.4

Students interpret fractions in
relation to one whole



Naming Fractions

Fractions can also represent a part of a whole. It shows the relationship between the number of parts selected (numerator on top) and the total number of parts in one whole (denominator on the bottom).

**Example:**

This pizza has been cut into 5 pieces. You are given the shaded slices of pizza, therefore, you received $\frac{3}{5}$ of the pizza. You do not get the whole pizza, you are only getting part of the whole pizza.

Part 1 What fraction is shaded in on the images below?

 _____	 _____	 _____
 _____	 _____	 _____

Part 2 Read the fraction and draw the shaded in value on the whole below.

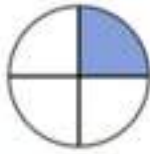
 $\frac{3}{5}$	 $\frac{1}{6}$	 $\frac{4}{4}$	 $\frac{8}{10}$
 $\frac{1}{8}$	 $\frac{3}{6}$	 $\frac{2}{3}$	 $\frac{6}{7}$

Benchmark Fractions

We use benchmark fractions to estimate parts of a whole. The benchmark fractions that are most popular are: zero, half, whole, quarter, three-quarters.



Zero



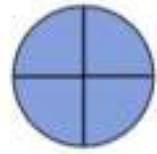
One-Quarter



Half



Three-Quarter



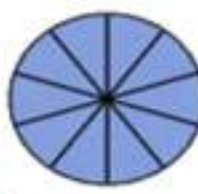
Whole

Part 1 Write the fraction and then label it using the benchmarks above

1.



3.



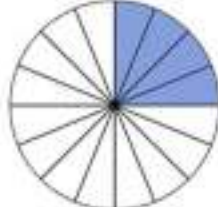
4.



5.



6.



7.





Part 2

Write as many fractions of each benchmark as you can

Zero	One-Quarter	Half	Three-Quarters	Whole
$\frac{0}{1}$	$\frac{3}{12}$	$\frac{8}{16}$	$\frac{9}{12}$	$\frac{1}{1}$

Comparing Common Denominators

If fractions have the same denominator, the larger fraction will have the larger numerator.

For example - $\frac{3}{8} < \frac{4}{8}$

Part 1 Compare the fractions using $<$ $>$ $=$

$\frac{2}{5}$ <input type="text"/>	$\frac{6}{8}$ <input type="text"/>	$\frac{5}{8}$ <input type="text"/>	$\frac{2}{7}$ <input type="text"/>	$\frac{3}{7}$ <input type="text"/>	$\frac{6}{10}$ <input type="text"/>	$\frac{5}{10}$ <input type="text"/>	
$\frac{5}{5}$ <input type="text"/>	$\frac{4}{9}$ <input type="text"/>	$\frac{4}{9}$ <input type="text"/>	$\frac{5}{7}$ <input type="text"/>	$\frac{4}{7}$ <input type="text"/>	$\frac{7}{9}$ <input type="text"/>	$\frac{7}{9}$ <input type="text"/>	
$\frac{2}{2}$ <input type="text"/>	$\frac{1}{2}$ <input type="text"/>	$\frac{4}{6}$ <input type="text"/>	$\frac{4}{6}$ <input type="text"/>	$\frac{5}{5}$ <input type="text"/>	$\frac{4}{5}$ <input type="text"/>	$\frac{2}{4}$ <input type="text"/>	$\frac{4}{4}$ <input type="text"/>

Part 2 Put the fractions in order from least to greatest

$\frac{2}{10}$	$\frac{3}{10}$	$\frac{5}{10}$	$\frac{4}{10}$	$\frac{1}{10}$	$\frac{10}{10}$		
_____	_____	_____	_____	_____	_____		
$\frac{2}{9}$	$\frac{3}{9}$	$\frac{5}{9}$	$\frac{1}{9}$	$\frac{9}{9}$	$\frac{8}{9}$	$\frac{7}{9}$	$\frac{4}{9}$
_____	_____	_____	_____	_____	_____	_____	_____

Part 3 Answer the word problem below

On Wednesday, $\frac{7}{9}$ kids played basketball for free time. On Friday, $\frac{1}{9}$ kids played basketball in their free time. Which day had a greater fraction of kids playing basketball.

Ordering Fractions with Common Denominators**Directions**

Put the fractions in order from least to greatest

1) $\frac{2}{5}$ $\frac{1}{5}$ $\frac{0}{5}$ $\frac{4}{5}$ $\frac{3}{5}$ $\frac{5}{5}$

2) $\frac{7}{8}$ $\frac{4}{8}$ $\frac{5}{8}$ $\frac{2}{8}$ $\frac{1}{8}$

3) $\frac{4}{6}$ $\frac{3}{6}$ $\frac{2}{6}$ $\frac{6}{6}$ $\frac{5}{6}$

4) $\frac{9}{9}$ $\frac{6}{9}$ $\frac{3}{9}$ $\frac{2}{9}$ $\frac{1}{9}$

5) $\frac{3}{10}$ $\frac{8}{10}$ $\frac{10}{10}$ $\frac{7}{10}$ $\frac{4}{10}$

6) $\frac{6}{12}$ $\frac{9}{12}$ $\frac{10}{12}$ $\frac{7}{12}$ $\frac{4}{12}$ $\frac{2}{12}$

7) $\frac{1}{15}$ $\frac{9}{15}$ $\frac{10}{15}$ $\frac{4}{15}$ $\frac{5}{15}$ $\frac{8}{15}$

Exit Cards

Cut Out

Cut out the exit cards below and have students complete them at the end of class

Name: _____

Put the fractions in order from least to greatest

$$\frac{3}{7} \quad \frac{5}{7} \quad \frac{1}{7} \quad \frac{0}{7}$$

Name: _____

Put the fractions in order from least to greatest

$$\frac{3}{7} \quad \frac{5}{7} \quad \frac{1}{7} \quad \frac{0}{7}$$

Name: _____

Put the fractions in order from least to greatest

$$\frac{3}{7} \quad \frac{5}{7} \quad \frac{1}{7} \quad \frac{0}{7}$$

Name: _____

Put the fractions in order from least to greatest

$$\frac{3}{7} \quad \frac{5}{7} \quad \frac{1}{7} \quad \frac{0}{7}$$

Same Numerator/Different Denominator

If fractions have the same numerator, they have the same number of equal parts. If the denominator is different, the fractions have a different number of total parts. Check out the pizzas below that have the same numerators but different denominators.


 $\frac{4}{8}$

The whole pizza is cut into 8 pieces. 4 slices have been shaded in.


 $\frac{4}{6}$

The whole pizza is cut into 6 pieces. 4 slices have been shaded in.

If you were hungry, would you rather have $\frac{4}{6}$ slices of pizza, than $\frac{4}{8}$. Therefore, $\frac{4}{6}$ is bigger than $\frac{4}{8}$. In this example, the whole is the same size. This means the pizza is the same size. We can compare fractions that have the same numerator if the whole is the same size.

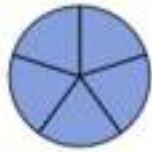
Question

Write the fraction and which one is bigger

1)



3)



5)



4)



6)



Same Numerator/Different Denominator

When comparing fractions with the same numerator, we can look at the denominator to know which is bigger. The fraction with the bigger denominator is smaller. This is because the whole has less equal parts.



Part 1

Compare the fractions using $<$ $>$ $=$

1) $\frac{2}{4}$ <input type="text"/> $\frac{2}{5}$	2) $\frac{5}{4}$ <input type="text"/> $\frac{5}{5}$	3) $\frac{3}{5}$ <input type="text"/> $\frac{3}{7}$	4) $\frac{6}{10}$ <input type="text"/> $\frac{6}{12}$
5) $\frac{3}{8}$ <input type="text"/> $\frac{3}{5}$	6) $\frac{4}{9}$ <input type="text"/> $\frac{4}{6}$	7) $\frac{5}{9}$ <input type="text"/> $\frac{5}{7}$	8) $\frac{7}{8}$ <input type="text"/> $\frac{7}{9}$
9) $\frac{8}{10}$ <input type="text"/> $\frac{8}{12}$	10) $\frac{5}{8}$ <input type="text"/> $\frac{5}{10}$	11) $\frac{2}{12}$ <input type="text"/> $\frac{2}{11}$	12) $\frac{2}{12}$ <input type="text"/> $\frac{2}{5}$

Part 2

Put the fractions in order from least to greatest

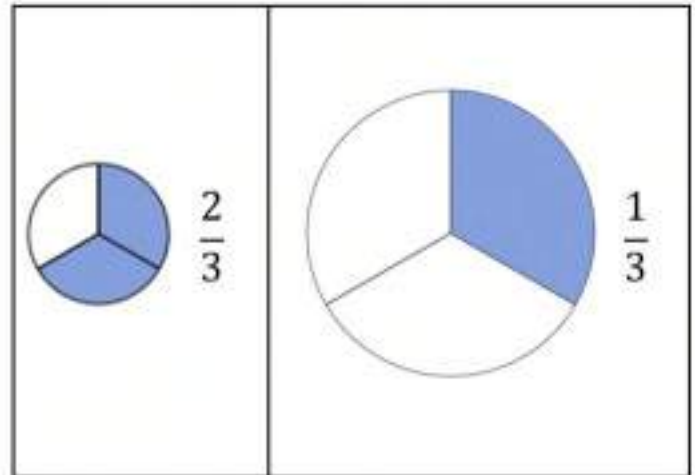
$\frac{4}{4}$ $\frac{4}{8}$ $\frac{4}{9}$ $\frac{4}{5}$ $\frac{4}{10}$ $\frac{4}{6}$ $\frac{4}{7}$ $\frac{4}{11}$

$\frac{5}{7}$ $\frac{5}{8}$ $\frac{5}{6}$ $\frac{5}{9}$ $\frac{5}{10}$ $\frac{5}{11}$ $\frac{5}{5}$ $\frac{5}{12}$

Comparing Fractions – Different Wholes

The size of the whole is important when we compare fractions. Two thirds ($\frac{2}{3}$) of a small pizza could be smaller than one third ($\frac{1}{3}$) of an extra-large pizza. Check out the example.

When the fractions are the same, but the whole is different, we can compare the sizes by looking at the size of the whole.

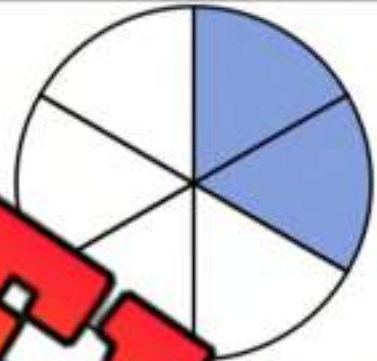


Question Read each fraction and circle which one is bigger

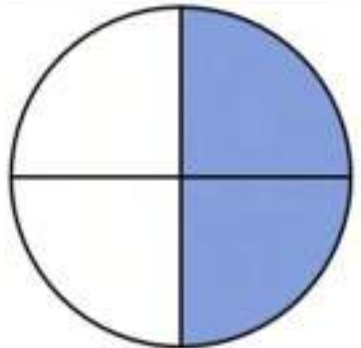
1)



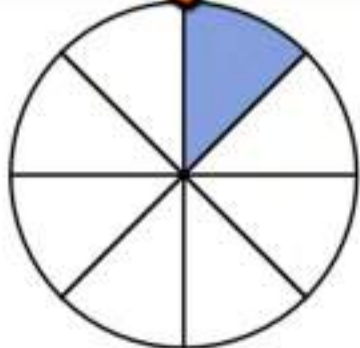
2)



3)



4)



Comparing Fractions

Part 1

Write the fraction and circle which one is bigger

1)



2)



3)



4)



Part 2

Compare the fractions using $<$ $>$ $=$

1)

$$\frac{2}{5} \quad \square \quad \frac{2}{5}$$

2)

$$\frac{3}{6} \quad \square \quad \frac{5}{6}$$

3)

$$\frac{3}{4} \quad \square \quad \frac{3}{7}$$

4)

$$\frac{2}{10} \quad \square \quad \frac{2}{12}$$

5)

$$\frac{3}{8} \quad \square \quad \frac{3}{8}$$

6)

$$\frac{4}{9} \quad \square \quad \frac{4}{5}$$

7)

$$\frac{5}{7} \quad \square \quad \frac{4}{7}$$

8)

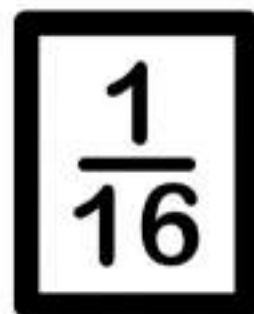
$$\frac{2}{8} \quad \square \quad \frac{7}{8}$$

Activity – Fraction Race to the Finish

Objective

What are we learning about?

To help students visually compare and order fractions through a creative and interactive game.



Materials

What you will need for the activity.

- 1) A large sheet of paper or a whiteboard.
- 2) Several different colours.
- 3) Fraction cards (with fractions written on them such as $\frac{2}{4}$, $\frac{1}{4}$, $\frac{3}{4}$, etc.).
- 4) A ruler or measuring tape.

Instructions

How to complete the activity

- 1) Print off the number line on the next page.
- 2) Divide into Groups: Organize the class into small groups, each consisting of eight students.
- 3) Distribute Fraction Cards: Give each group a set of fraction cards (include fractions between 0 and 1).
- 4) Individual Fraction Selection: Each student in the group selects a fraction card from their set.
- 5) Place Fractions on Number Line: All students simultaneously place their chosen fraction card at the appropriate spot on their group's number line between 0 and 1. Encourage discussion within groups to reach a consensus on the placement.
- 6) Group Review: Once all cards are placed, each group takes turns presenting their number line to the class, explaining their reasoning for the placement of each fraction.
- 7) Class Consolidation: After each group has presented, conduct a whole-class activity. Draw a new, large number line and have each group place their fraction cards on this communal line in the same order as in their group activity. This allows for comparison and further discussion of the different fractions and their relative sizes.

Name: _____

219

Curriculum Connection
N4

Fraction Cards

Cut out the fraction cards and hand them to each group

$1/4$

$1/2$

$3/10$

$3/5$

$1/10$

$1/5$

$3/4$

PREVIEW

Name: _____

220

Curriculum Connection
N4

Fraction Cards

Cut out the fraction cards and hand them to each group

$$\frac{2}{4}$$

$$\frac{1}{3}$$

$$\frac{1}{4}$$

$$\frac{1}{8}$$

$$\frac{6}{10}$$

$$\frac{1}{10}$$

PREVIEW

Name: _____

221

Curriculum Connection
N4

Fraction Cards

Cut out the fraction cards and hand them to each group

$2/5$

$1/5$

$5/5$

$3/5$

$1/10$

$9/10$

$8/10$

PREVIEW

Name: _____

222

Curriculum Connection
N4

Fraction Cards

Cut out the fraction cards and hand them to each group

$$\frac{2}{6}$$

$$\frac{1}{6}$$

$$\frac{5}{6}$$

$$\frac{6}{6}$$

$$\frac{1}{12}$$

$$\frac{11}{11}$$

$$\frac{1}{2}$$

$$\frac{0}{2}$$

PREVIEW

Name: _____

223

Curriculum Connection
N4

Number Line

Use the fraction number line below

1



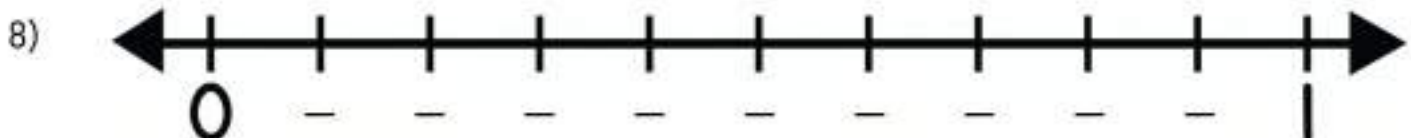
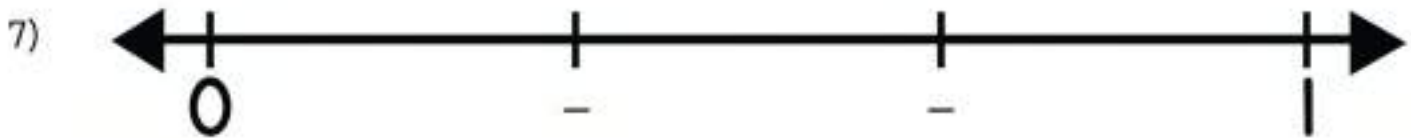
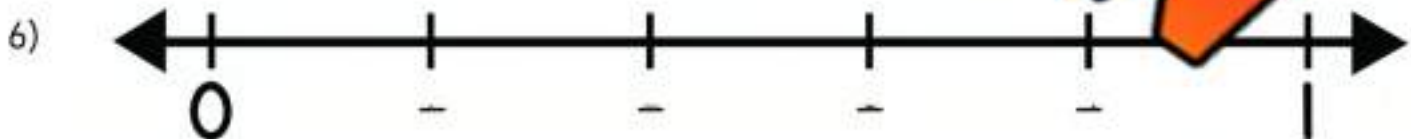
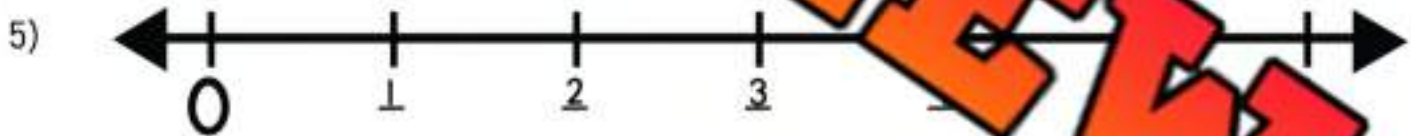
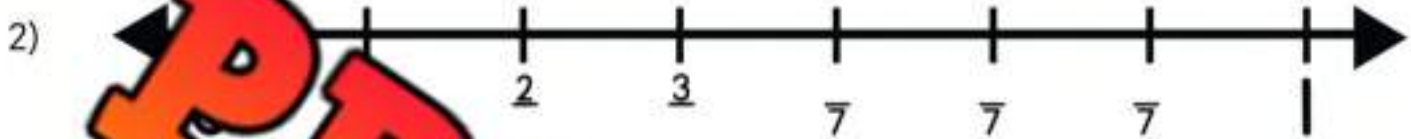
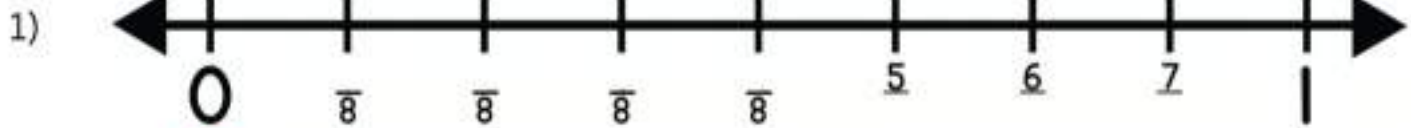
0

PREVIEW

Writing Fractions on a Number Line

Questions

Fill in the number lines below



Writing Fractions on a Number Line

Questions

Write the fraction on the number line

1)

$$\frac{2}{5}$$



2)



3)

$$\frac{2}{8}$$



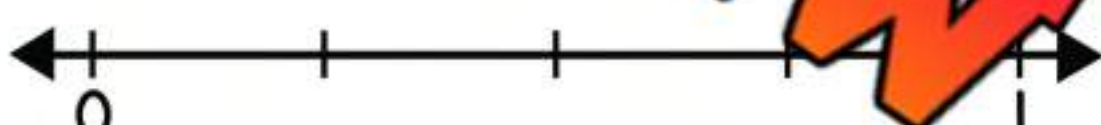
4)

$$\frac{4}{6}$$



5)

$$\frac{3}{4}$$



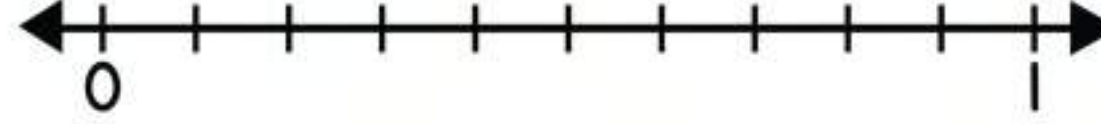
6)

$$\frac{2}{5}$$



7)

$$\frac{5}{10}$$

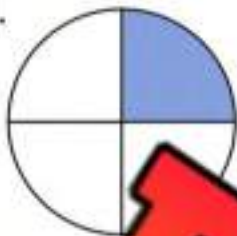


Fractions Quiz

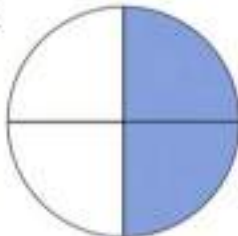
Part 1

Write the fraction and then label it – half, quarter, third, whole

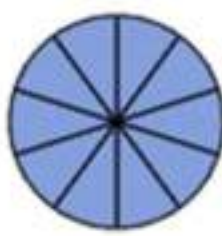
1.



2.



3.



4.

**Part 2**

What fraction is shaded in each image below?

**Part 3**

Put the fractions in order from least to greatest

$\frac{4}{7}$

$\frac{5}{7}$

$\frac{1}{7}$

$\frac{3}{7}$

$\frac{7}{7}$

Part 4

Put the fractions in order from least to greatest

$$\frac{4}{4} \quad \frac{4}{8} \quad \frac{4}{9} \quad \frac{4}{5} \quad \frac{4}{10}$$

Part 5

Compare the fractions using $<$ $>$ $=$

1)

$$\frac{2}{6} \square \frac{2}{8}$$

3)

$$\frac{3}{4} \square \frac{3}{4}$$

4)

$$\frac{2}{6} \square \frac{2}{8}$$

5)

$$\frac{3}{9} \square \frac{3}{9}$$

6)

$$\frac{2}{9} \square \frac{5}{7}$$

8)

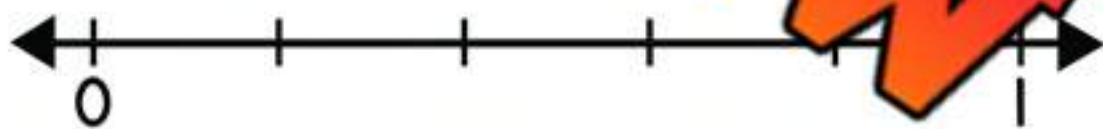
$$\frac{3}{8} \square \frac{7}{8}$$

Part 6

Write the fraction on the number line

1)

$$\frac{3}{5}$$



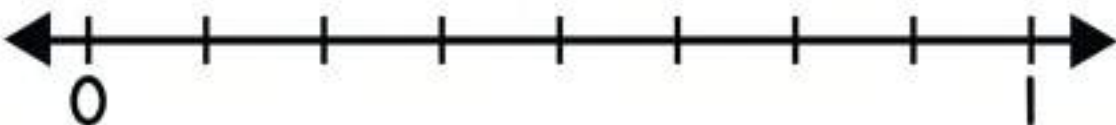
2)

$$\frac{2}{3}$$



3)

$$\frac{5}{8}$$





Google Slides Lessons Preview





Alberta Math Curriculum Statistics– Grade 3

3-Part Lesson Format

Part 1 – Minds On!


- Learning Goals
- Discussion Questions
- Quotes
- And More!

STATISTICAL QUESTIONS

Learning Goal

We are learning to ask statistical questions and identify first-hand and second-hand data using simple investigations, so we can predict and understand different answers when collecting information.

STATISTICAL QUESTIONS

If you asked your classmates these questions, would they be considered statistical questions? 

#	Questions	Yes	No
1	What is your favourite colour?	Yes	No
2	What is your teacher's name?	Yes	No
3	How many pets do students in your class have?	Yes	No
4	How old are you?	Yes	No
5	What snacks do students in your class like?	Yes	No
6	What is today's date?	Yes	No
7	How many books do students read in a week?	Yes	No
8	What is your school's name?	Yes	No
9	What games do students like to play at recess?	Yes	No
10	What is the address of city hall?	Yes	No

Part 2 – Action!

- Writing
- Matching
- Drag and Drop
- Drawing
- And More!

Part 3 – Consolidation!

- Exit Cards
- Quizzes
- Reflection
- And More!

STATISTICAL QUESTIONS

Write your own predictions for the statistical questions below **1 2 3 4 5 6 7 8 9 0**

#	Questions	Predictions	
1	Which snack is most popular in your class – chips, fruit, cookies, or crackers?		
2	Which game do students like the most – tag, soccer, basketball, or hide-and-seek?		
3	How many minutes do students in my class read each day?	Least	Most
4	How many minutes do students in my school play outside each day?	Least	Most
5	How many pets do students in my class have?	Least	Most
6	How many books do students in my class read in a week?	Least	Most



Alberta Math Curriculum Statistics- Grade 3

TALLY MARKS

1 2 3 4 5 6 7 8 9 0

The students in a class were asked what their favourite fruit is. The results are shown using tally marks. Fill in the frequency for each category.

Category	Apples	Bananas	Oranges	Grapes
Tally				
Frequency				

Oranges

Grapes

1

Bananas

32

1) How many students were surveyed?
 2) Which fruit is the most popular?
 3) Which fruit is the least popular?
 4) How many more students chose apples than oranges?

LINE PLOT

What is a Line Plot?

- A **line plot** shows data using marks (X's or dots) above a number line.
- Each mark stands for **one item**.
- Line plots help us **see how often something happens**.

Parts of a Good Line Plot

- Title** that tells what the data is about
- Number Line** that shows the values (numbers)
- Marks (X's or dots)** to show how many
- Labels** to explain what the numbers mean

Why Do We Use Line Plots?

- To **count** how many times something happens
- To **compare** data

Number of Cars Sold

x x x

x x x

LINE PLOT

Answer the questions about the graph.

Pizza Burger Rice Pasta Salad

Favourite Lunch					
●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●
Pizza	Burger	Rice	Pasta	Salad	

1) Which lunch is the most popular?
 2) Which lunch is the least popular?
 3) How much more popular is pizza than pasta?
 4) How many students were surveyed?

Food	Pizza	Burger	Rice	Pasta	Salad
Tally					
Frequency					



Alberta Math Curriculum Statistics- Grade 3

BAR GRAPH

How to Read a Bar Graph

- Read the title to know what the data is about.
- Look at the labels to see what each bar represents.
- Compare the bars to find:
 - Which group has **more**
 - Which group has **less**
 - Which groups have the **same amount**

Why We Use Bar Graphs

- Bar graphs help us **compare groups easily**.
- They help us **see patterns and differences**.
- They help us **answer questions** from the data.

Favourite Seasons in Grade 3

Season	Number of Votes
Spring	5
Summer	6
Fall	3
Winter	2

BAR GRAPHS

Answer the questions about the graph.

Grade 3 students were asked which after-school activity was their favourite.

1 2 3 4 5 6 7 8 9 0

Grade 3s Favourite After-School Activities

Activity	# of Students
Reading	4
Playing Outside	6
Drawing	3
Watching TV	2

- Which after-school activity is the **most popular**?
- Which activity is the **least popular**?
- How many students chose **reading**?
- How many students chose **drawing and playing outside** altogether?
- How many more students chose **playing outside** than watching TV?

CREATING A SCALE

What is a Scale?

- A scale shows how we count the numbers on a graph.
- It helps us organize the data so everything fits on the graph properly.
- We can count by 1s, 2s, 5s, or 10s depending on the data.
- A good scale makes the graph clear and easy to understand.

Steps to Create a Scale

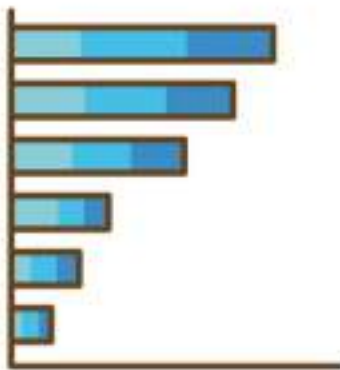
- Step 1:** Look at your data and find the smallest and largest values.
- Step 2:** Count how many lines or spaces you have on the graph.
- Step 3:** Choose how to count (by 1s, 2s, 5s...) so all the data fits.
- Step 4:** Add clear labels to your scale so others can read your graph easily.

Favourite Drinks

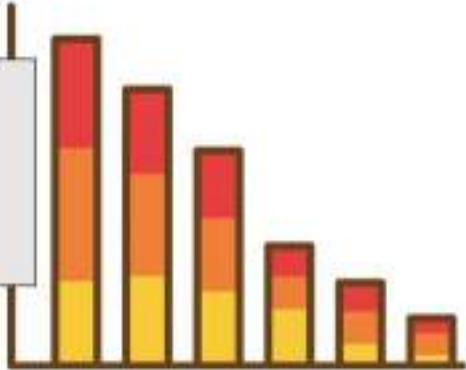
Drink	# of Students
Tea	4
Water	2
Juice	6
Milk	5

Favourite Foods

Food	# of Students
Pizza	80
Pasta	60
Sandwich	40
Fruit	20



Grade 3
Statistics



	Curriculum Expectations	Pages
S.1	<p><u>Students interpret and explain representations of data.</u></p> <ul style="list-style-type: none"> Formulate statistical questions for investigation. Predict the answer to a statistical question. 	48
	<p>collection of data in relation to a statistical question.</p> <ul style="list-style-type: none"> Examine First Nations, Métis, or Inuit representations of data. Consider possible answers to a statistical question based on the data collected. 	

Preview of 40 pages from
this product that contains 75
pages total.



What is a Statistical Question?

When we ask a statistical question, we can collect data that answers that question.

A **statistical question** is a question that could have more than one answer.

A statistical question is **not** a question that has only one answer.

Statistical questions can have numbered answers or worded answers.

Not a Statistical Question	Statistical Questions
1) How many dogs do you have? (only one answer)	1) How many dogs do the students in grade 3 have? (could have many different answers)
2) What is your favourite colour?	2) What is the favourite colour of 3 rd graders? (could have many different answers)

Practice

Is this question a statistical question - yes or no?

Question	Yes	No
1) How much did Steven pay for his new book?	Yes	No
2) Which colours are most popular for grade 3 students?	Yes	No
3) How many times have the students in grade three visited Canada?	Yes	No
4) How many times have you left Canada?		No
5) How many steps do the grade 3's take each day?	Yes	No
6) How many steps did your teacher take today?	Yes	No
7) How many organized sports do the teachers at your school play?	Yes	No
8) How many seconds does it take Emma to run the 100 m race?	Yes	No
9) How many seconds does it take for the grade 3s to run 100 m?	Yes	No
10) How many treats do the students in your school eat a day?	Yes	No

Writing Statistical Questions

When we write a statistical question, we need to think about what we want to learn and who we want to learn about. Who we ask our statistical question is our population.



Subject	Population	Question
Hockey	The Calgary Wolves Atom Team	How many goals have each player on the Calgary Wolves Atom hockey team scored?
Video Game	Students in my class	Which video game system do the grade 3's like the best - PlayStation, Nintendo, or Xbox?

Practice

Write your statistical questions about the subjects below

Subject	Population	Question
1) School	Who will ask?	
2) Sports		
3) Food		
4) Movies		
5) Computers		

Statistical Questions - Predictions

When we create our own statistical questions, we should have a prediction or guess as to what the results will be. This prediction will either verify our understanding or teach us something new about our population.



Question	Prediction
How long does it take the students in grade 3 to get to school?	Least - 5 minutes Most - 30 minutes

Practice making your own predictions for the statistical questions below

Questions	Prediction	
1) Which drink is the most popular in my class - milk, juice, water, pop, or chocolate milk?		
2) Which subject does your class like best - math, science, language, art or gym?		
3) How many minutes do students in my class watch shows/movies each day?	Least	Most
4) How many minutes do the teachers at my school watch shows/movies each day?	Least	Most
5) How many fruits or vegetables do students in my class eat each day?	Least	Most
6) How many fruits or vegetables do teachers in my school eat each day?	Least	Most

First-Hand vs Second-Hand Data

First-Hand Data

Data that you have collected yourself

Example

- asking your classmates their favourite food

Second-Hand Data

Data that has been collected by someone else

Example

- How much rainfall landed in Saskatoon in May

Part 1

Read the description and circle if it is first-hand or second-hand data

1) You look up how many goals per game in the playoffs last year and graph the data	First-Hand Second-Hand
2) You measure the heights of everyone in your class	First-Hand Second-Hand
3) You measure the snow in your area each week	First-Hand Second-Hand
4) You look up how much snow fell each day in December	First-Hand Second-Hand
5) You record how many minutes you play video games each day	First-Hand Second-Hand
6) You look up the distances from your house to different countries around the world	First-Hand Second-Hand

Part 2

Write your own first-hand and second-hand data description below

1) First-Hand	
2) Second-Hand	
3) First-Hand	
4) Second-Hand	

Exit Cards

Cut Out

Cut out the exit cards below and have students complete them at the end of class

Name: _____

Read the description and circle if it is first-hand or second-hand data.

1) You interview your classmates to find out their favourite movies.	First-Hand
	Second-Hand
2) You research the average temperature in your city over the past decade using online resources.	First-Hand
	Second-Hand
3) You analyze the scores from your school's basketball team for the past season.	First-Hand
	Second-Hand
4) You take photos of different types of leaves you find in your neighbourhood and classify them.	First-Hand
	Second-Hand

Name: _____

Read the description and circle if it is first-hand or second-hand data.

1) You interview your classmates to find out their favourite movies.	First-Hand
	Second-Hand
2) You research the average temperature in your city over the past decade using online resources.	First-Hand
	Second-Hand
3) You analyze the scores from your school's basketball team for the past season.	First-Hand
	Second-Hand
4) You take photos of different types of leaves you find in your neighbourhood and classify them.	First-Hand
	Second-Hand

Name: _____

Read the description and circle if it is first-hand or second-hand data.

1) You interview your classmates to find out their favourite movies.	First-Hand
	Second-Hand
2) You research the average temperature in your city over the past decade using online resources.	First-Hand
	Second-Hand
3) You analyze the scores from your school's basketball team for the past season.	First-Hand
	Second-Hand
4) You take photos of different types of leaves you find in your neighbourhood and classify them.	First-Hand
	Second-Hand

Name: _____

Read the description and circle if it is first-hand or second-hand data.

1) You interview your classmates to find out their favourite movies.	First-Hand
	Second-Hand
2) You research the average temperature in your city over the past decade using online resources.	First-Hand
	Second-Hand
3) You analyze the scores from your school's basketball team for the past season.	First-Hand
	Second-Hand
4) You take photos of different types of leaves you find in your neighbourhood and classify them.	First-Hand
	Second-Hand

First-Hand Data Survey Questions

When we collect first-hand data, we often use survey questions to ask people to gather the data. We can also create research questions for experiments we plan to perform so that we can collect first-hand data.

Example of First-Hand Survey Questions

- What is your favourite hobby?
- What is your favourite food?

Example of First-Hand Research Questions

- How much snow will fall this month in my backyard?
- How many pushups can I do every day for 10 days?

Part 1

Write 5 survey questions you could ask to gather first-hand data

1)

2)

3)

4)

5)

Part 2

Write 5 research questions for experiments you could do to gather first-hand data

1)

2)

3)

4)

5)

Second-Hand Data – Generating Questions

When we collect second-hand data, we are finding data from another source. This means someone else has collected the data for others to use as second-hand data.

Using second-hand data allows us to answer questions we may have. With so much data available to us, we can write research questions about almost anything and find the data online.

Example

- 1) Which YouTubers had the most views last year?
- 2) Which players scored the most points last year?
- 3) What were the average temperatures in Canada, the USA, Jamaica, and Russia last year?

Practice

Write a question you could look up to gather second-hand data

1)

2)

3)

4)

5)

6)

7)

8)

9)

10)

Name: _____

14

Curriculum Connection
S.1

Tally Marks

= 1	= 2	= 3	= 4	/ = 5
/ = 6	/ = 7	/ = 8	/ = 9	/ / = 10

Part 1 Count the tally marks

/	/	/	
_____	_____	_____	_____
/	/ /	/ /	/ / /
_____	_____	_____	_____

Part 2 Draw tally marks that match the number

3 =	7 =	
12 =	15 =	18 =
26 =	31 =	

Part 3 Which is greater? Use the < > or =

8 _____ /	13 _____ / /	14 _____ / / /
---------------	----------------------	----------------------------

Tally Marks and Frequency Tables

Part 1 Fill in the table by writing in the frequency of the tally marks

1. The students in a class were asked what their favourite sport is. The results are listed below. Fill in the frequency of the tally marks in each category below.

Category	Football	Hockey	Basketball	Soccer
Tally				
Frequency				

- a) How many people were in the class? _____
- b) Which sport is the most popular in the class? _____
- c) Which sport was the least popular in the class? _____
- d) How many more people liked hockey than basketball? _____



Part 2 Fill in the table by drawing the tally marks based on the frequency

2. Henry asked his friends what food they liked the best. He forgot to write down the categories, but he wrote down the frequency. Help him fill in the table by drawing the tally marks.

Category	Pizza	Sandwich	Hot Dogs	French Fries
Tally				
Frequency	13	5	12	9

- a) How many friends participated in the survey? _____
- b) Which food is the most popular? _____
- c) How many more friends liked French fries than sandwiches? _____

Name: _____

16

Activity Title: Tally Mark Nature Walk**Objective**

What are we learning about?

Students will learn to use tally marks to count and record data by observing and tallying specific natural objects they find outdoors.

Materials

What you will need for the activity.

- Clipboard or sheet of paper for writing
- Paper with the recording table printed on it
- Pencils
- Optional: magnifying glasses and small bags for collecting items

**Instructions**

How you will complete the activity.

1. Start by explaining what tally marks are and how they are used to count objects efficiently.
2. Take the class outside for a nature walk around the schoolyard or nearby park.
3. Give each student a clipboard with the recording table printed on it. Optionally, provide magnifying glasses and small bags for collecting items.
4. Instruct students to look for specific items such as red flowers, round rocks, pine cones, feathers, acorns, and four-leaf clovers. They should use tally marks to record how many of each item they find in the table.
5. Allow students to explore and tally their findings for a set amount of time, like 15-20 minutes.
6. After the exploration, gather the class and have students share their findings. Record the results on a large sheet of paper or a whiteboard using tally marks.
7. Discuss the different quantities of items found and compare results among the students.

Observations Fill in the table below while walking around your natural environment

Item	Tally Marks	Total Count
Red Flowers		
Round		
Pine Cones		
Feathers		
Acorns		
Four-leaf Clovers		
Spider Webs		
Ant Hills		
Animal Tracks		

PREVIEW

Exit Cards

Cut Out

Cut out the exit cards below and have students complete them at the end of class

Name: _____

Fill in the tally table below

Favourite Subject		
Subject	Tallies	Frequency
Math		
Science		16
English		9
Gym		
Music		24

Name: _____

Fill in the tally table below

Favourite Subject		
Subject	Tallies	Frequency
Math		
Science		16
English		9
Gym		
Music		24

Name: _____

Fill in the tally table below

Favourite Subject		
Subject	Tallies	Frequency
Math		
Science		16
English		9
Gym		
Music		24

Name: _____

Fill in the tally table below

Favourite Subject		
Subject	Tallies	Frequency
Math		
Science		16
English		9
Gym		
Music		24

Survey Using Tally Marks

Directions

Survey your classmates using the statistical question below using tally marks

Statistical Question: What is the most popular pet in our class?

Category	Math	Science	Gym	Art	Social Studies
Tally					
Frequency					

Interpret

What does the data tell you?

- a) How many classmates participated in the survey? _____
- b) Which pet is the most popular? _____ Most popular: _____
- c) What did you learn about the data?

- d) What other pet could you include?

- e) If you asked the rest of your school, which category do you think would be most popular? Explain.

Survey Using Tally Marks

Directions

Create your own statistical question and tally the results

Statistical Question:

Category					
Tally					
Frequency					

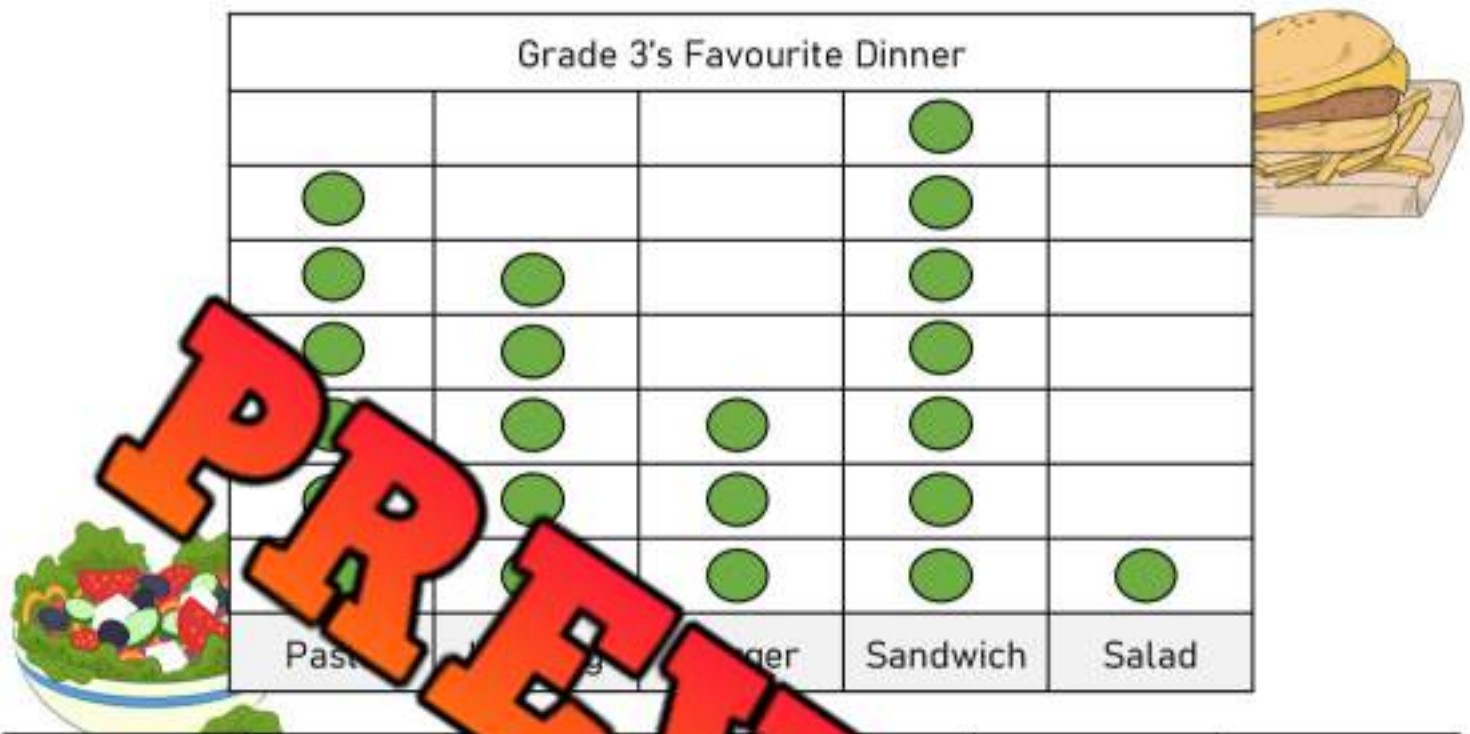
a) How many friends participated in _____

b) What did you learn about the data?

_____c) Would an "other" category have helped you get better data? Explain.

_____d) If you asked the rest of your school, which category do you think would be most popular? Explain.

Reading a Line Plot – Favourite Dinner



Dinner	Pasta	Hot Dog	Hamburger	Sandwich	Salad
Frequency					

Questions

Read the line plot and answer the questions.

a) Write the statistical question for the graph?

b) Which dinner was the most popular?

c) Which dinner was the least popular?

d) How many total people were asked the survey question?

e) How many more people like hot dogs than salad?

f) Put the dinner options in order of least popular to most popular.

Exit Cards

Cut Out

Cut out the exit cards below and have students complete them at the end of class

Name: _____

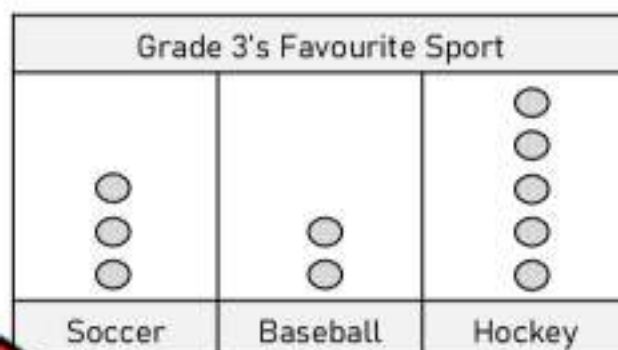
Read the line plot and answer the questions



Dinner	Soccer	Baseball	Hockey
Frequency			

Name: _____

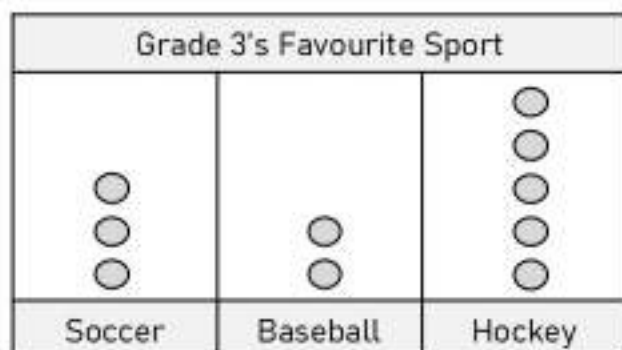
Read the line plot and answer the questions



Dinner	Soccer	Baseball	Hockey
Frequency			

Name: _____

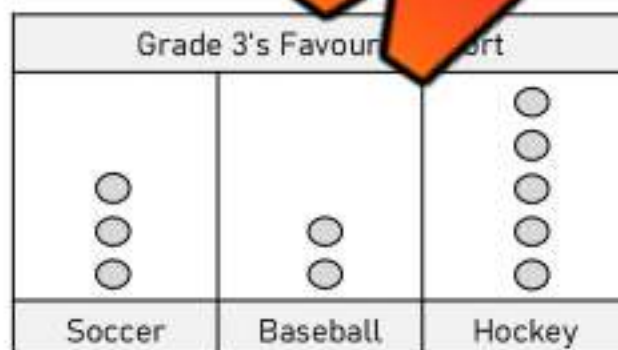
Read the line plot and answer the questions



Dinner	Soccer	Baseball	Hockey
Frequency			

Name: _____

Read the line plot and answer the questions



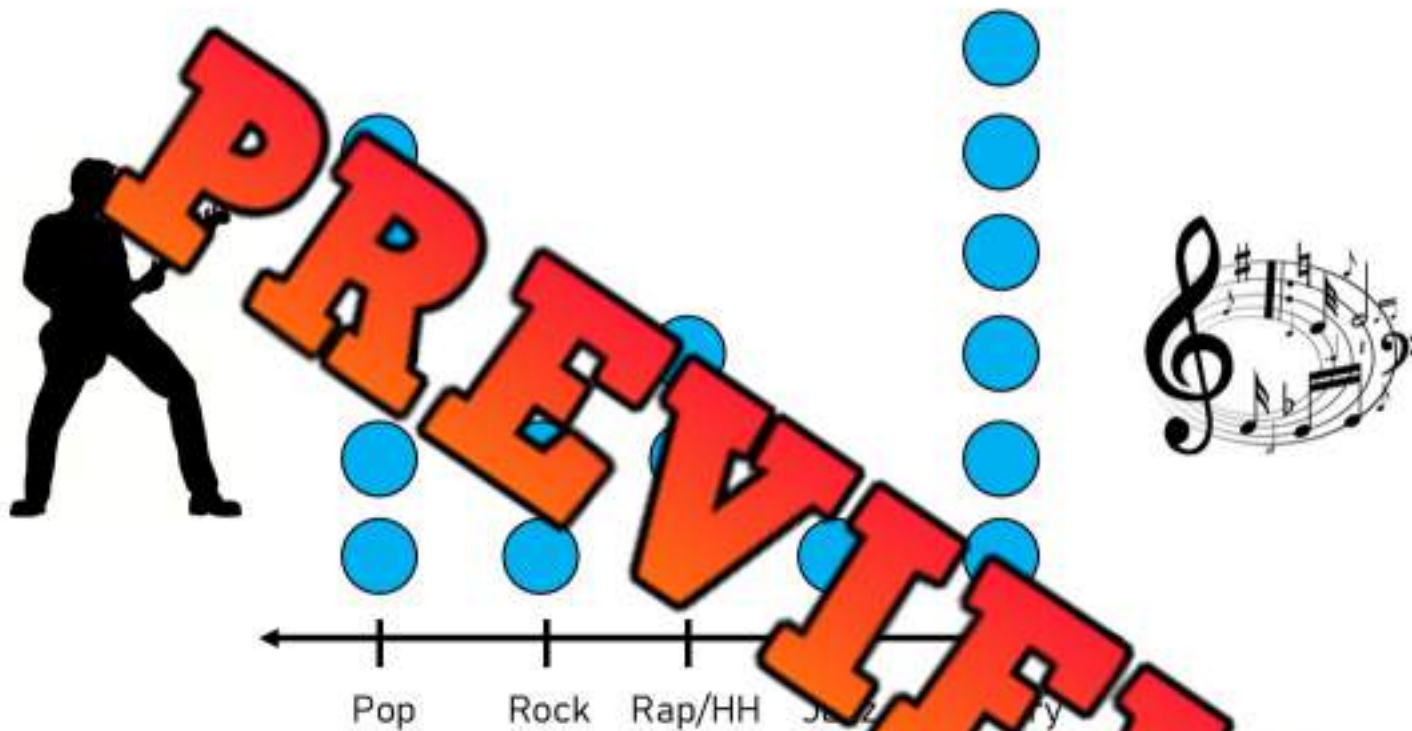
Dinner	Soccer	Baseball	Hockey
Frequency			

Reading a Line Plot – Music Genres

Part 1

Read the line plot below and answer the questions

An online survey asked people what their favourite music genre is. The results have been displayed below in a line plot.



Part 2

Fill in the frequency table below

Category	Pop	Rock	Rap/Hip Hop	Jazz	Country
Tally					
Frequency					

1) Which genre of music is the most popular? _____ Least popular: _____

2) How much more popular is country than rock? _____

3) How many people were surveyed? _____

Creating a Line Plot - Hobby

Questions

Survey your class and use the data in a line plot

Survey Question: What is your favourite hobby?**Instructions** - Use tally marks to record the answer to the survey question.

Category	Reading	Computer	Gaming	Playing Outside
Tally				
Frequency				

Title: _____

Reading	Computer	Gaming	Playing Outside

Name: _____

26

Creating a Line Plot

Questions

Survey your class and use the data in a line plot

Statistical Question: _____

Category					
Tally					
Freq					

Title: _____

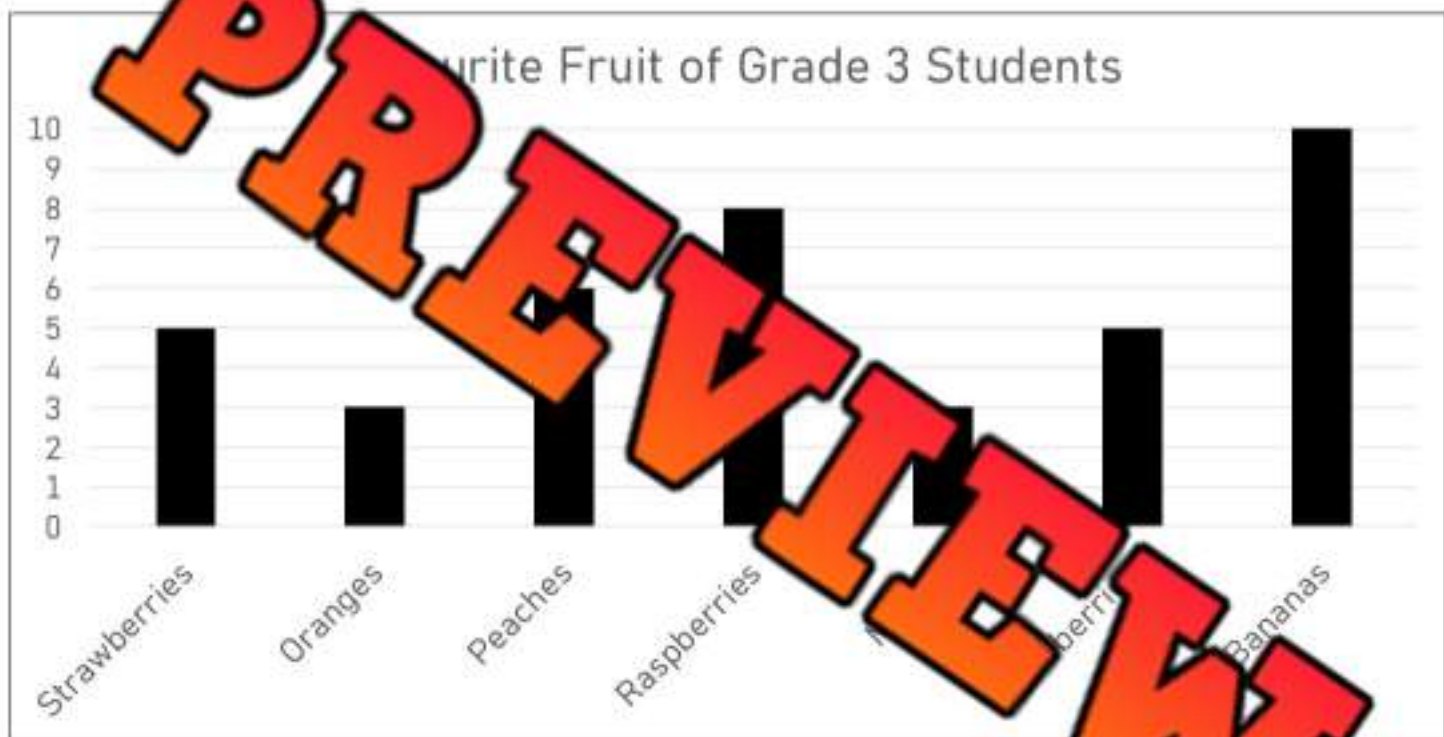
PREVIEW

Why We Use Graphs

Luca wanted to know which fruit was most popular in his class. He collected data and displayed it in the bar graph below.



Strawberries	Oranges	Peaches	Raspberries	Mango	Blueberries	Bananas



a) Which fruit was the most popular?

b) How many students liked bananas more than oranges?

c) Does the graph and table show the same data?

Yes

No

d) Which is easier to read, the table or the graph? Which one allows you to find the most popular fruit faster?

Graph

Table

e) What are the benefits of using a graph?

Vertical Bar Graph – Favourite Colour

The students in grade 3 were asked which colour was their favourite. The results of the survey have been displayed in the bar graph below.



a) Which colour was most popular?

b) Which colour was the least popular?

c) How many people chose yellow as their favourite?

d) How many people like red and blue the best?

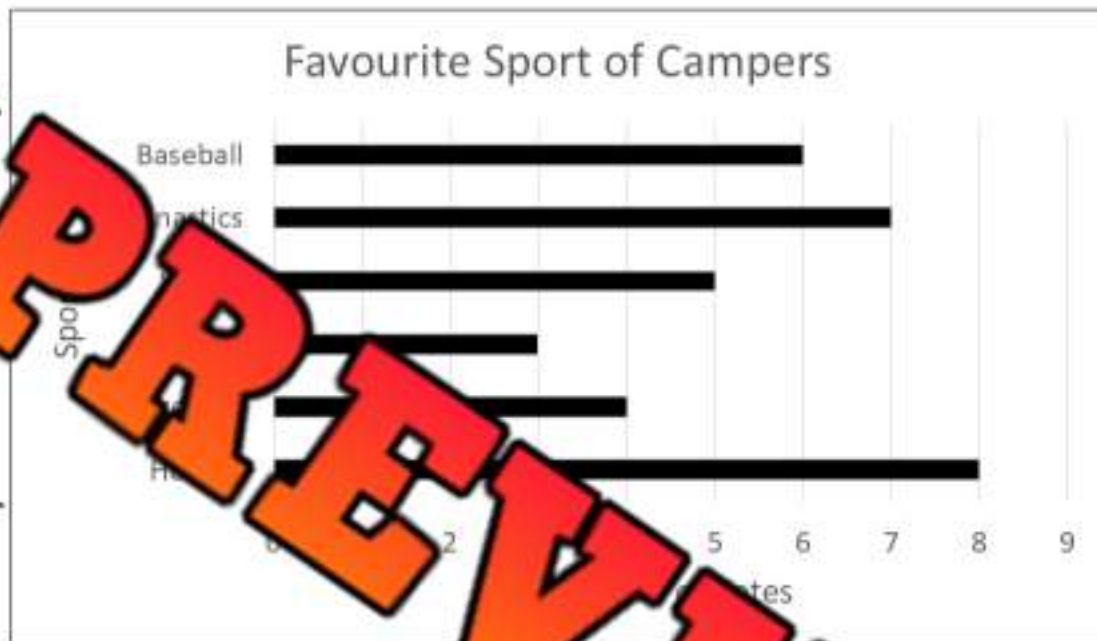
e) How many more people like red than orange?

f) What two colours add up to the amount of red?

g) How many people were surveyed?

Horizontal Bar Graph – Favourite Sport

The kids at camp were asked which sport they liked the best. They surveyed each kid and displayed the results in a horizontal bar graph.



- Which sport was most popular?
- Which sport was the least popular?
- Who is the population that was surveyed?
- How many kids liked basketball and soccer the best?
- What is the title of the y-axis ↑ ?
- What is the title of the x-axis → ?
- What is the title of the graph?
- How many kids were surveyed?
- What is the statistical question for this graph?

Exit Cards

Cut Out

Cut out the exit cards below and have students complete them at the end of class

Name: _____

1) Which category of drink is most popular?
_____2) How many people were surveyed?

Name: _____

1) Which category of drink is most popular?
_____2) How many people were surveyed?

Name: _____

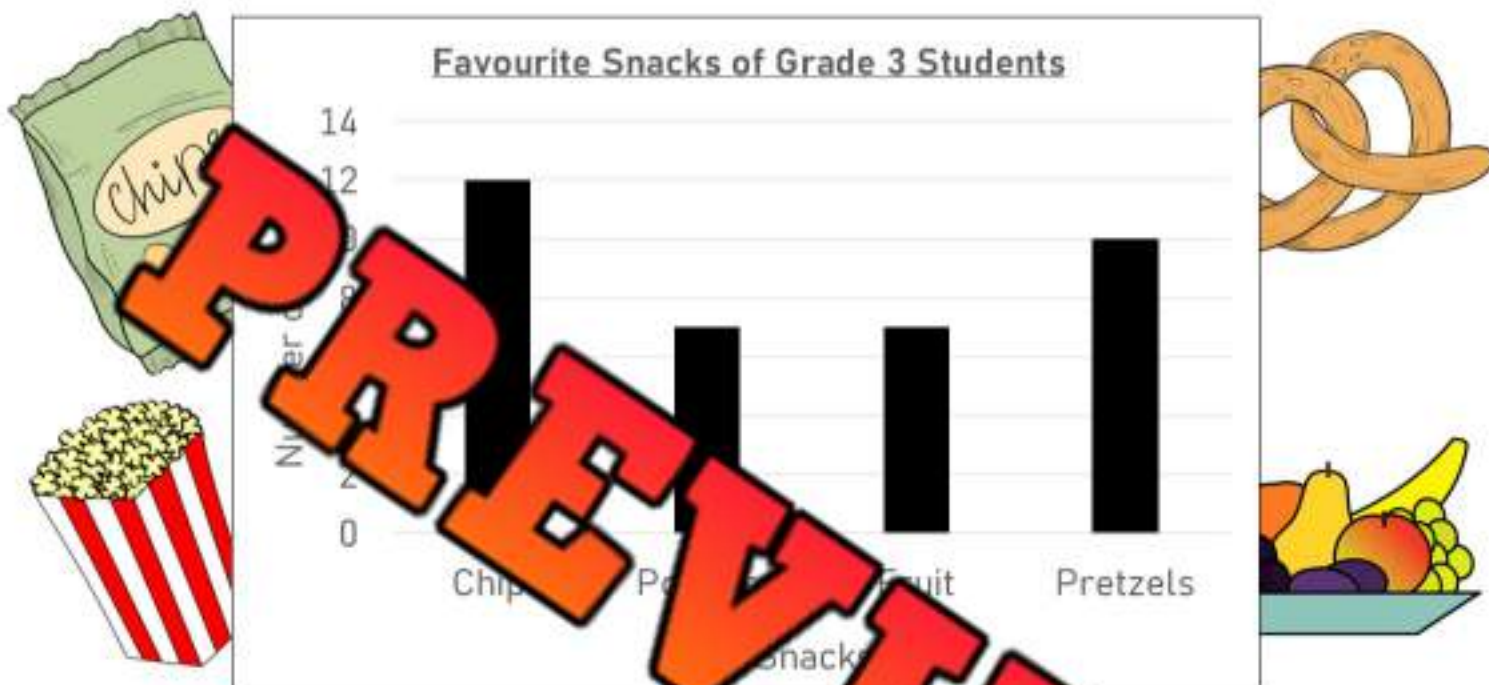
1) Which category of drink is most popular?
_____2) How many people were surveyed?

Name: _____

1) Which category of drink is most popular?
_____2) How many people were surveyed?

Reading a Bar Graph – Favourite Snack

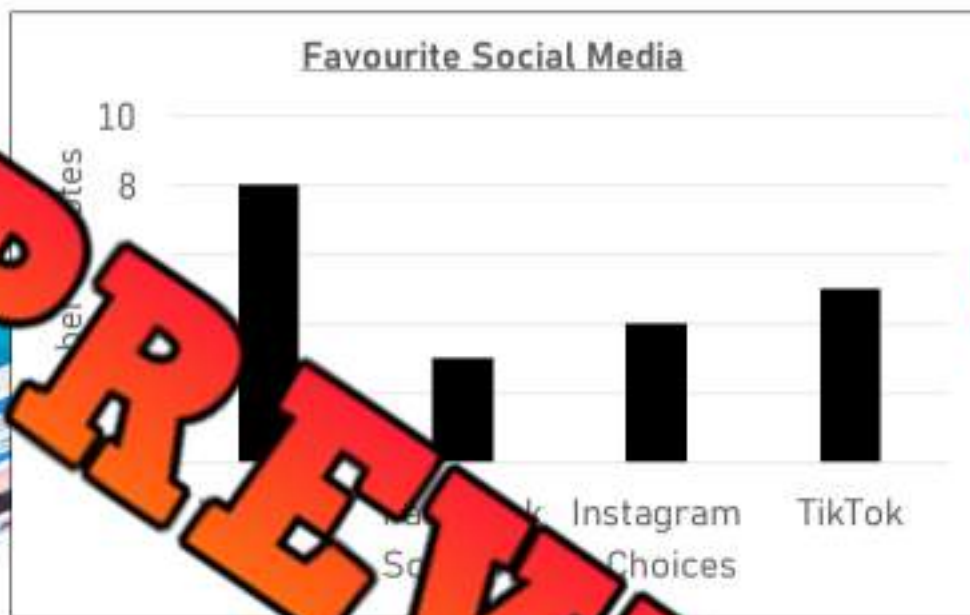
Roger asked his grade 3 classmates what their favourite snack was. He gave them four options. His results are below.



- Which snack was most popular?
- Which snack was the least popular?
- How many more kids chose chips than fruit?
- How many kids liked popcorn and fruit together?
- Roger thinks chips were more popular than popcorn and fruit put together. Is he correct?
- What other snack options could he have included?
- How many kids were surveyed?
- What is the statistical question for this graph?

Surveying a Suitable Representation

Bella wants to know what the most popular social media app is at her school. She decides to ask 20 students from her grade 3 class.



a) Which social media was the most popular?

b) Did Bella find out which social media was the most popular in the school? Explain.

c) Who should she have asked if she wanted to know what the most popular social media app was in her entire school?

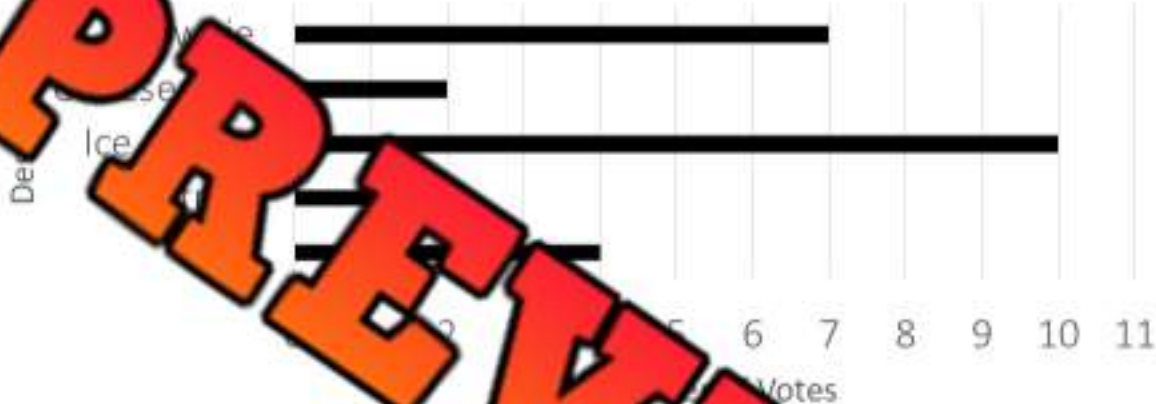
d) If she only wanted to survey around 20 kids in total, how could she do it so that she still found out what the most popular app was in the whole school?

Surveying a Suitable Representation

Liam is a restaurant owner who wants to find out which dessert is the most popular so he can know what to serve at his restaurant. His restaurant serves mostly seniors who are 65 years old or older.

To collect his data, Liam goes to a skatepark and asks 25 people there. His data has been displayed in a bar graph below.

Favourite Dessert



a) Which dessert should Liam serve at this restaurant according to his data?

b) Did Liam find out which dessert seniors preferred? Why or why not?

c) Where could Liam have gone to complete his survey? Why would your choice of location be better?

d) Why is it important to pay attention to who you are surveying when you are collecting data?

Sampling a Population

What is a Population?

A **population** is all the people that fit a particular description. For example, students in Alberta is a population that would include all the students in Alberta. Another example could be grade 3 students at your school. It could be just your class, or other grade 3 classes in your school as well.



When we want to learn more about a population, we can survey them. This means we ask them questions. The answers we receive will be data we can use to learn more about the population.

Sampling a Population

When we want to know something about a population, it's easier to ask a sample of the population instead of asking everyone within that population. For example, if we wanted to know which drink the kids in your school liked the best, we could ask 5 students from each class, instead of asking every single student.



Sampling a population saves us a lot of time and money. It works well if we sample the population correctly. When we choose just a sample of the population, we should do it randomly. A bad sample would be only asking 5 friends in each class or only asking 5 girls in each class.

Sampling a Population

Questions

Write a sample of the population that would not be a good representation of the population

Population	Survey Question	Bad Sample
Pet Owners in Alberta	What is the best pet?	Cat owners in Alberta
Parents	Which sport is best for kids?	Parents at a hockey arena
Students in Alberta	Which city is the best?	
University Students in Alberta	Which city is the best?	
Kids who own video games	Which video system is the best?	
Kids in Alberta	Which sports store is the best?	
Teachers in Alberta	Which school is the best in Alberta?	

Questions

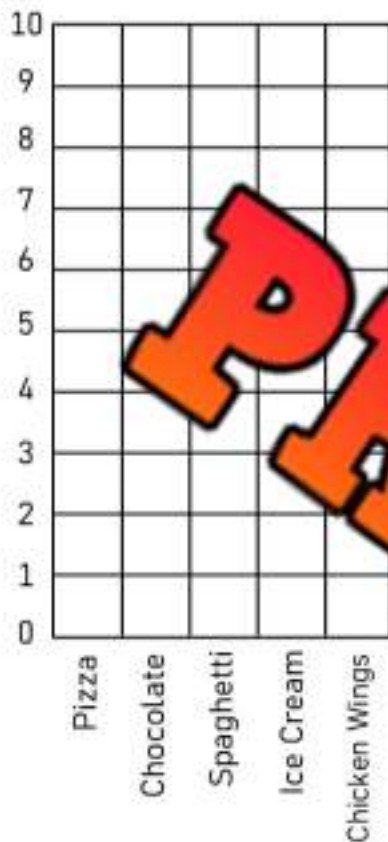
Write a good sample of the population

Population	Survey Question	Good Sample
Students at your school	Best subject in the school	
Teachers in your city	Favourite grade to teach	
Kids between 8-12 years old	Favourite sport	

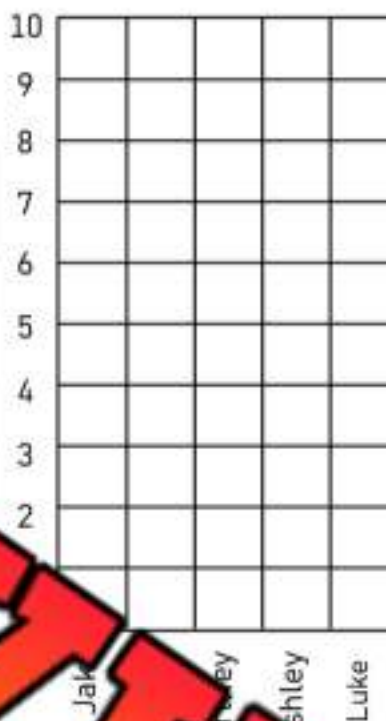
Drawing Bar Graphs

Questions

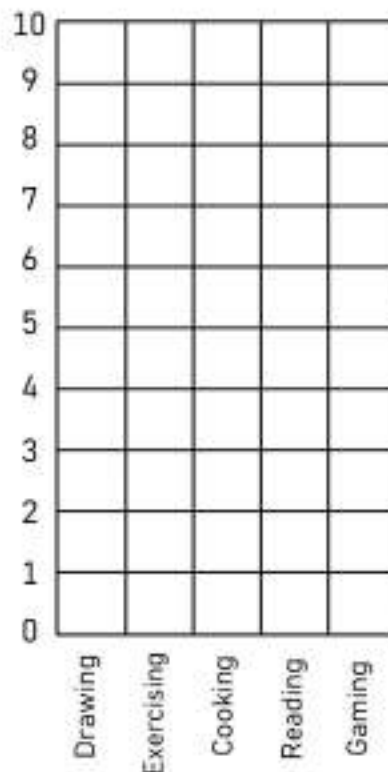
Draw the bars for each of the bar graphs below



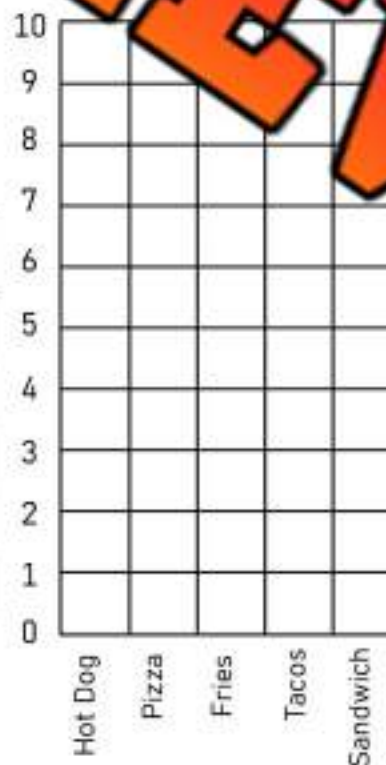
Favourite Food	# of votes
Pizza	9
Chocolate	4
Spaghetti	6
Ice Cream	3
Chicken Wings	2



Player	# of points
Jake	3
Nathan	1
Courtney	7
Ashley	6
Luke	10



Favourite Hobby	# of votes
Drawing	9
Exercising	5
Cooking	5
Reading	8
Gaming	2

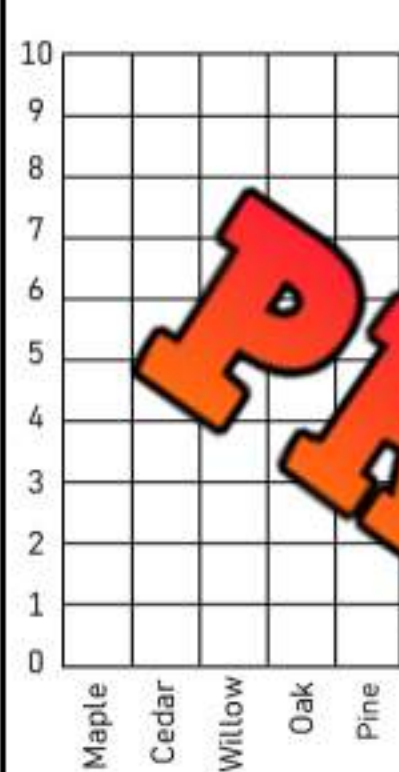


Favourite Food	# of votes
Hot Dog	1
Pizza	3
Fries	5
Tacos	7
Sandwich	9

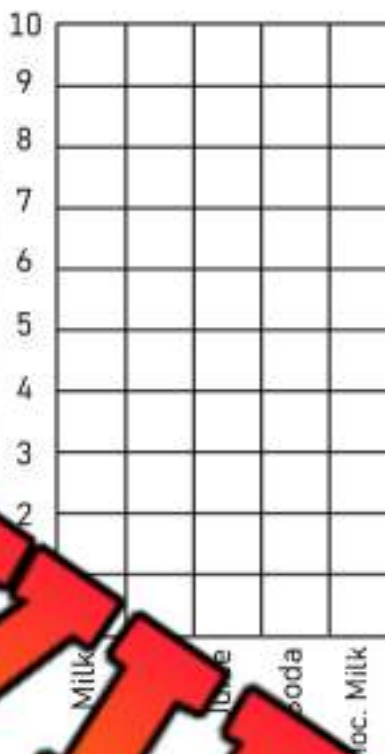
PREVIEW

Drawing Bar Graphs

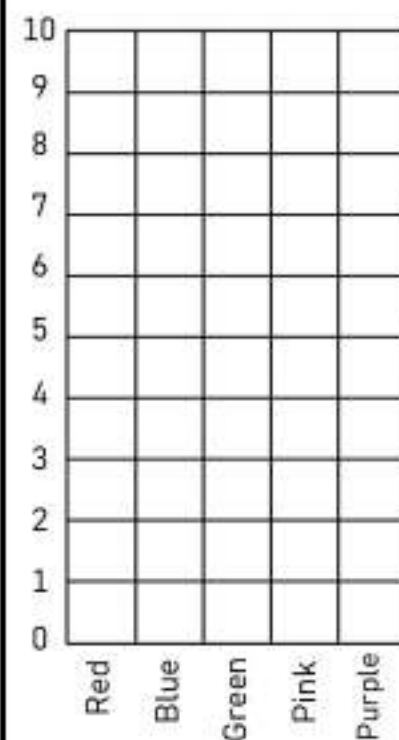
Questions Draw the bars for each of the bar graphs below



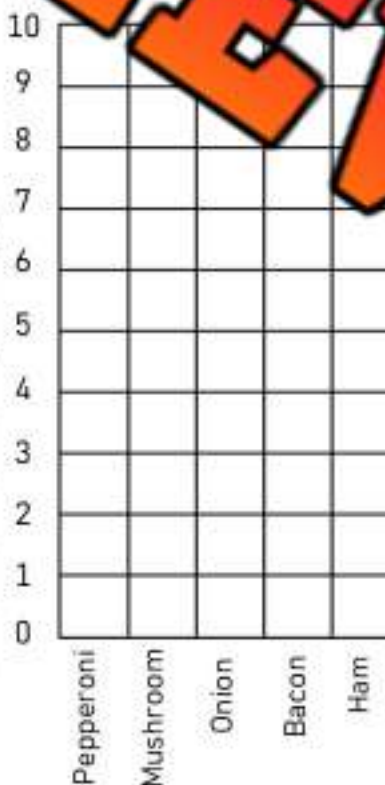
Favourite Tree	# of votes
Maple	2
Cedar	5
Willow	1
Oak	10
Pine	10



Favourite Drink	# of points
Milk	3
Water	6
Juice	2
Soda	8
Choc. Milk	7



Favourite Colour	# of votes
Red	6
Blue	7
Green	5
Pink	6
Purple	9



Favourite Pizza Topping	# of votes
Pepperoni	6
Mushroom	8
Onion	5
Bacon	3
Ham	1

PREVIEW

Exit Cards

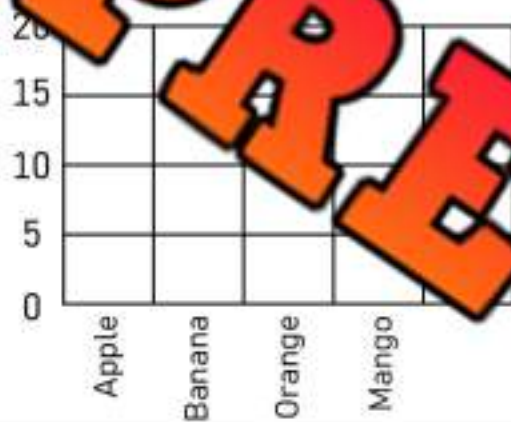
Cut Out

Cut out the exit cards below and have students complete them at the end of class

Name: _____

Draw the bars for the bar graphs below.

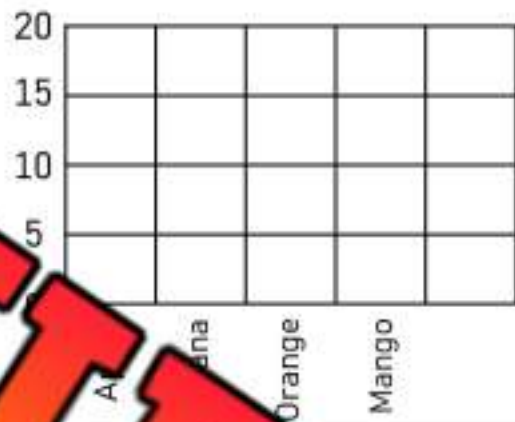
Fruit	Apple	Banana	Orange	Mango
Votes	20	10	15	5



Name: _____

Draw the bars for the bar graphs below.

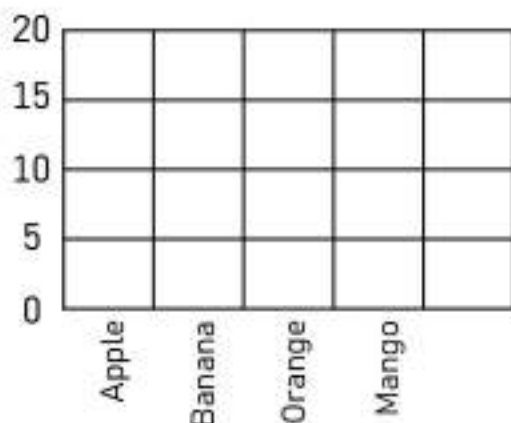
Fruit	Apple	Banana	Orange	Mango
Votes	20	10	15	5



Name: _____

Draw the bars for the bar graphs below.

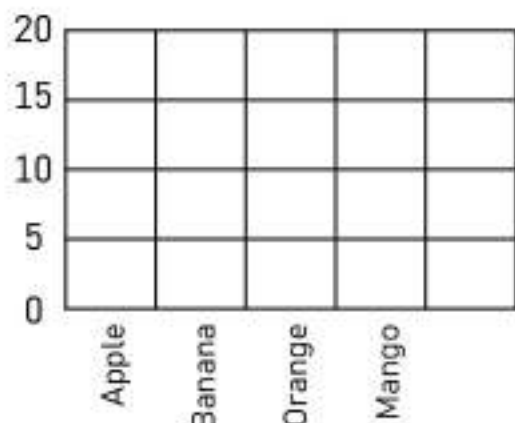
Fruit	Apple	Banana	Orange	Mango
Votes	20	10	15	5



Name: _____

Draw the bars for the bar graphs below.

Fruit	Apple	Banana	Orange	Mango
Votes	20	10	15	5



Collecting Data

Directions

Create your own statistical question and survey your classmates

Statistical Question

Example: Which flavour of ice cream is most popular among grade 3s?

Category				
Tally				
Frequency				

Interpret

What did you learn from your data?

Interpreting Your Survey Results

1. How many people did you survey? _____
2. Which category was the most popular? _____
3. Which category was the least popular? _____
4. If you asked your entire school, which category do you think would win? Explain.

5. Did any of the survey results surprise you?

I'm surprised that _____

Name: _____

Creating a Bar Graph

Use the data you collected to plot your graph. Remember the following labels:

X axis label

Y axis label

Title

Scale

Categories

title: _____

PREVIEW



Representing Second-Hand Data in a Bar Graph

Directions

Create a bar graph that represents the second-hand data

Statistical Question: How many wins did the Calgary Flames have in the playoffs from 2018 to 2022?



Years	2018	2019	2020	2021	2022
Frequency	0	1	5	0	5

PREVIEW

Title _____

_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

What story does the graph tell us? What did you learn about Calgary's performances the last 5 years?

First Nations Graph

Statistical Question

What percentage of First Nation members speak a First Nation language?



Percentage of First Nation Members That Speak a First Nation Language Well



Interpret

What did you learn from the graph?

Statistics Canada

1) Which age group of First Nation members has more people that speak a First Nation language?

2) Which age group of First Nation members has the least percentage of people that speak a First Nation language?

3) Are younger or older First Nation members more likely to speak a First Nation language?

4) Why do you think older First Nation members are more likely to speak a First Nation language?

Inuit Living in Canada



Statistical Question

Which 5 provinces/territories do most Inuit people live in?

Number of Thousands of Inuit People Living in the Provinces/Territories of Canada



Source: Statistics Canada

Interpret

What did you learn from the graph?

1) Where do most Inuit people live in Canada?

2) What surprised you about the data?

3) Where in Canada do most Inuit people live - in the north or south? Where do you think they live in provinces - the northern or southern regions?

Unit Test – Data Literacy

Part 1

Count the tally marks

_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

Part 2

Read the pictograph and answer the questions

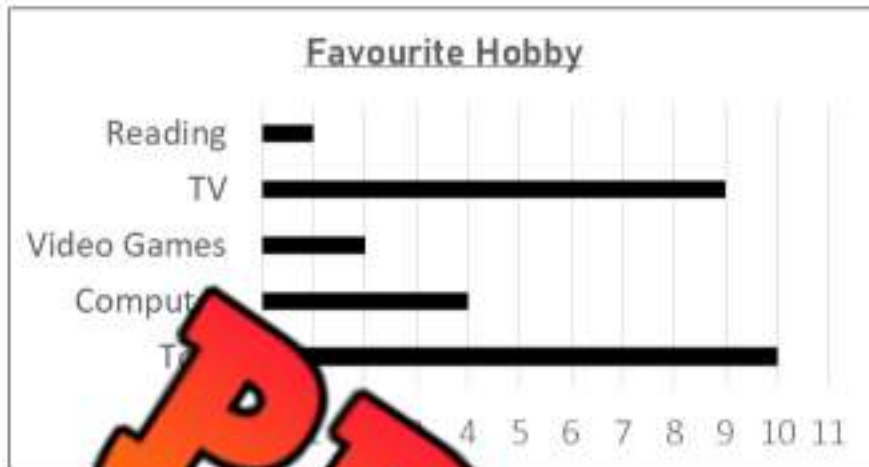
Grade 3's Favorite Drinks

		●	●	
		●	●	●
	●	●	●	●
●	●	●	●	●
Tea	Water	Pop	Juice	Milk

Drink	Frequency
Tea	
Water	
Pop	
Juice	
Milk	

- Which drink was the most popular?
- Which drink was the least popular?
- How many total people were asked the survey question?
- What was the statistical question?

The grade 3s were asked which hobby was their favourite. The results have been graphed below.



a) Which hobby was the most popular?

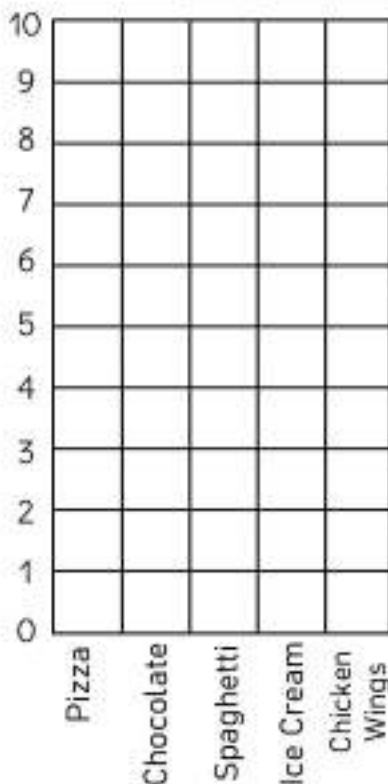
b) Which hobby was the least popular?

c) How many more students chose TV than reading?

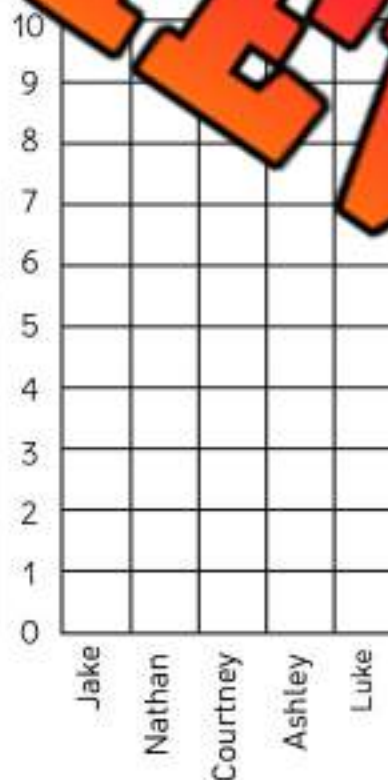
d) How many students were surveyed?

Part 3

Draw the bars for each of the bar graphs below.



Favourite Food	# of votes
Pizza	4
Chocolate	6
Spaghetti	2
Ice Cream	7
Chicken Wings	10



Name	# of points
Jake	3
Nathan	5
Courtney	1
Ashley	8
Luke	9