



Preview – Information



Thank you for your interest in this product. Within this preview, you will see:

- ✓ A selection of Ready-To-Use Google Slides Lessons.
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Google Slides Lessons Preview





Manitoba Math Curriculum Number Unit – Grade 6

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 bike that costs \$1489. If you don't understand place value, you might think it's only \$148 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...

#	Number	# of Millions	# of Thousands	# of Hundreds	# of Tens	# of Ones
1.	657 529					
2.	2 443 469					
3.	3 809 362					
4.	8 128 758					
5.	7 541 846					
6.	10 000 000					

Part 2 – Action!

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

Part 3 – Consolidation!

- Exit Cards
- Quizzes
- Reflection
- And More!

Solve...

My number has 9 hundred thousands, 7 ten thousands, 8 thousands, 5 less hundreds than thousands, 2 ones, and 3 more tens than ones. What is my number?

Drag the base ten blocks below

Write the Number:

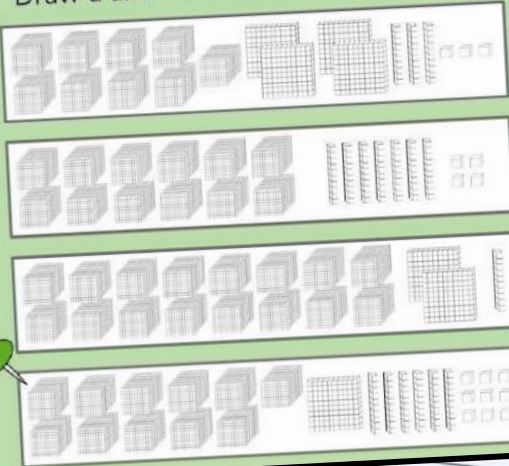


Manitoba Math Curriculum

Number Unit – Grade 6



Place Value - Matching



Draw a line from the base ten blocks to the number they represent.

12 074

11 169

9 433

16 210

30

200

2

90

300

2) 4 317 392

3) 6 136 786

4) 7 892 005

5) 8 920 567

6) 9 459 378

6 000 000

100 000

30 000

6000

7 000 000

800 000

90 000

2000

8 000 000

900 000

20 000

0

8

70

300

Number Breakdown

3 784 217

M	HTh	TTh	Th	H	T	O

1) 3 784 217 = _____

2) 3 784 217 = _____

3) 3 784 217 = _____

Fill in the blanks by writing the expanded form below

_____ + _____ + _____ + _____ + _____ + _____ + _____

Fill in the pattern below

3 784 217 , _____ , _____ , 3 814 217 , _____ , 3 834 217

Fill in the pattern below

3 784 217 , _____ , 3 984 217 , _____ , _____ , 4 284 217

Hundred Thousands

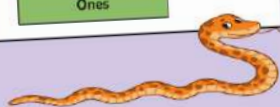
Ten Thousands

Thousands

Hundreds

Tens

Ones





Manitoba Math Curriculum Number Unit – Grade 6

Comparing Numbers

Drag the correct sign between the numbers.



#	Number 1	Sign	Number 2
1	112 713		112 726
2	326 132		426 118
3	3 435 324		3 332 617
4	4 543 882		4 543 882
5	2 048 354		2 048 314
6	3 510 893		3 510 893

#	Number 1	Sign	Number 2
7	551 632		552 610
8	3 761 844		3 762 745
9	5 467 315		5 467 315
10	7 872 991		7 872 543
11	886 475		886 692
12	9 193 721		9 193 463

Drag the blocks into the respective boxes to show the factor.

Factor blocks and target numbers:

Target numbers: 8, 17, 18, 49, 45, 17, 24

Factor blocks:

12	1	49	1
4	9	2	1
3	9	7	6
6	4	3	4
8	5	18	1
24	15		
1	2	1	2
5	45	9	8

cupcakes for \$32

- b) 12 cupcakes for \$24
- c) 10 cupcakes for \$22
- d) 8 cupcakes for \$20



3) 15 litres of milk from 3 cows

- a) 21 litres from 5 cows
- b) 30 litres from 6 cows
- c) 42 litres from 7 cows
- d) 40 litres from 8 cows



4) 6 pages in 2 minutes

- a) 18 pages in 6 minutes
- b) 24 pages in 8 minutes
- c) 50 pages in 10 minutes
- d) 28 pages in 12 minutes



4) 8 km in 32 minutes

- a) 16 km in 56 minutes
- b) 20 km in 60 minutes
- c) 24 km in 96 minutes
- d) 28 km in 80 minutes





Workbook Preview



Grade 6

Strand: Number

	Curriculum Expectations	Pages That Cover the Expectations
N.1	Demonstrate an understanding of place value, including numbers that are: • greater than one million • less than one thousandth.	5 – 20, 69 – 79, 89 – 90, 109 – 118
N.2	Solve problems involving large numbers, using technology.	21 – 25
N.3	Demonstrate an understanding of factors and multiples by: • determining multiples and factors of numbers less than 100	26 – 30
N.4		31 – 35
N.5		36 – 40
N.6	Demonstrate an understanding of percent (limited to whole numbers), concretely, pictorially and symbolically.	80 – 88, 109 – 118
N.7	Demonstrate an understanding of integers, concretely, pictorially and symbolically.	91 – 118
N.8	Demonstrate an understanding of multiplication and division of decimals (involving 1-digit whole-number multipliers, 1-digit natural number divisors, and multipliers and divisors that are multiples of 10), concretely, pictorially, and symbolically, by • using personal strategies • using the standard algorithms • using estimation • solving problems	121 – 173
N.9	Explain and apply the order of operations, excluding exponents (limited to whole numbers).	174 – 181

Preview of 100 pages from
this product that contains
345 pages total.

Name: _____

6

Curriculum Connection
N.1

Place Value – How Many ...

Number	# of Millions	# of Thousands	# of Hundreds	# of Tens	# of Ones
3 322 457	3	322	4	5	7

Part 1

Fill in the table below

	Number	# of Millions	# of Thousands	# of Hundreds	# of Tens	# of Ones
1	2 456 789					
2	8 123 456					
3	7 584 251					
4	1 945 328					
5	3 854 198					
6	2 050 187					
7	8 756 054					
8	7 681 362					
9	4 685 114					
10	6 820 047					

Part 2

Fill in the blanks with the missing number

- 1) $4\,624\,323 = 4\,000\,000 + 600\,000 + 20\,000 + \underline{\hspace{2cm}} + 300 + 20 + 3$
- 2) $3\,641\,781 = \underline{\hspace{2cm}} + 600\,000 + \underline{\hspace{2cm}} + 1\,000 + 700 + 80 + 1$
- 3) $2\,379\,458 = \underline{\hspace{2cm}} + 300\,000 + \underline{\hspace{2cm}} + 9\,000 + 400 + 50 + 8$
- 4) $6\,217\,523 = 6\,000\,000 + 200\,000 + 10\,000 + \underline{\hspace{2cm}} + 500 + \underline{\hspace{2cm}} + 3$
- 5) $8\,602\,489 = \underline{\hspace{2cm}} + 600\,000 + 0 + 2\,000 + \underline{\hspace{2cm}} + 80 + 9$

Name: _____

8

Curriculum Connection
N.1

Expanded Form

2 328 372

Standard Form

2 000 000 + 300 000 + 20 000 + 8 000 + 300 + 70 + 2

Expanded Form

Part 1

What is the standard form of the numbers below?

1) 7 000 000 + 30 000 + 1 000 + 400 + 80 + 2

2) 2 000 000 + 700 000 + 6 000 + 300 + 70 + 6

3) 8 000 000 + 50 000 + 400 + 80 + 9

4) 4 000 000 + 300 000 + 1 000 + 70 + 5

5) 6 000 000 + 400 000 + 10 000 + 3 000 + 1

Part 2

What is the expanded form of the numbers below?

1) 5 262 847

2) 2 465 447

3) 9 758 682

4) 7 158 318

5) 9 427 207

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?

$3000000 + 700000 + 60000 + 1000 + 200 + 40 + 1$

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

7 591 349

Name: _____

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

$3000000 + 700000 + 60000 + 1000 + 200 + 40 + 1$

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

7 591 349

Name: _____

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

$3000000 + 700000 + 60000 + 1000 + 200 + 40 + 1$

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

7 591 349

Name: _____

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

$3000000 + 700000 + 60000 + 1000 + 200 + 40 + 1$

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

7 591 349

Name: _____

10

Curriculum Connection
N.1

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
						1000000 - Million

Part 1 Write the standard form of the written words below

1) One hundred thirty-two thousand, five hundred fifty-eight	2) Five million, seven hundred sixty-three thousand, three hundred twelve
3) Two million, four hundred seventy-two thousand, nine hundred	4) Nine million, eight hundred thirty-two thousand, one hundred thirty-nine
5) Seven million, five hundred eighty thousand, one hundred ninety-nine	6) Four million, three hundred twelve thousand, one hundred sixty-two

Part 2 Write the written form of the number below

1) 1 345 142
2) 4 527 351
3) 6 512 257
4) 2 464 495
5) 7 450 246

Standard Form

Words

Expanded Form

Place Value Chart

Millions	H. Thousands	T. Thousands	Thousands	Hundreds	Tens	Ones

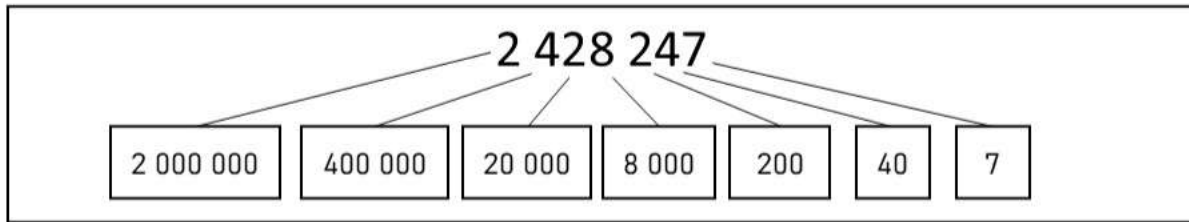
Pictures

Name: _____

13

Curriculum Connection
N.1

Decomposing Numbers



Questions

Decompose the numbers below

1)

2 8

2)

3 247 521

3)

4 734 419

4 138 243

5)

6 821 757

6)

95

7)

8 947 446

8)

6 325 891

9)

9 743 589

10)

3 294 215

Exit Cards

Cut Out

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

Name: _____

1) Compose the numbers below.

6000 30000 5000 100 50 6

2) Decompose the numbers below.

232

Name: _____

1) Compose the numbers below.

600000 30000 5000 100 50 6

2) Decompose the numbers below.

232 857

Name: _____

1) Compose the numbers below.

600000 30000 5000 100 50 6

2) Decompose the numbers below.

232 857

Name: _____

1) Compose the numbers below.

600000 30000 5000 100 50 6

2) Decompose the numbers below.

232 857

Place Value - Number Breakdown

Questions

Fill in the blanks below

Number Breakdown

3 846 853

Write the value of the underlined digit

1) 3 846 853 = _____

2) 3 846 853 = _____

3) 3 846 853 = _____

4) 3 846 853 = _____

M	H	Th	H	T	O

Fill in the blanks using the expanded form below

$$\underline{\hspace{2cm}} + \underline{\hspace{2cm}} + \underline{\hspace{2cm}} + \underline{\hspace{2cm}} + \underline{\hspace{2cm}} + \underline{\hspace{2cm}}$$

Fill in the pattern below

$$\underline{3\ 846\ 853} + \underline{\hspace{2cm}} + \underline{3\ 846\ 855} + \underline{\hspace{2cm}} + \underline{3\ 846\ 858}$$

Fill in the pattern below

$$\underline{3\ 846\ 853} + \underline{3\ 856\ 853} + \underline{\hspace{2cm}} + \underline{3\ 876\ 853} + \underline{\hspace{2cm}}$$

Fill in the pattern below

$$\underline{3\ 846\ 853}, \underline{4\ 846\ 853}, \underline{\hspace{2cm}}, \underline{\hspace{2cm}}, \underline{7\ 846\ 853}, \underline{\hspace{2cm}}$$

Compare using <, >, or =

3 846 853 3 846 795

3 825 455 3 846 853

3 846 853 3 837 246

3 836 457 3 846 853

3 846 853 3 846 482

3 846 853	+ 1000	
3 846 853	+ 10 000	
3 846 853	+ 1 000 000	
3 846 853	- 100 000	
3 846 853	- 1 000 000	

Name: _____

18

Curriculum Connection
N.1

Comparing Numbers

1 626 335  1 923 6153 834 351  3 236 2896 132 683  6 132 683

Part 1

Compare the following numbers

1)
2 663 180  2 111 0102)
3 263 447 3 313 3503)
5 631 203 5 631 2944)
1 135 437 1 135 4375)
4 742 753 4 742 7536)
7 362 149 7 365 0007)
4 532 842 5 532 3128)
5 383 750 5 383 7509)
2 544 879 1 544 87910)
6 235 441 6 237 39111)
8 923 383 8 923 38312)
6 274 371 6 274 371

Part 2

Write - Greater than, Equal to, Less than

1)
4 173 365 is ___ 4 141 537

Greater than

2)
2 162 116 is ___ 2 162 1163)
3 438 406 is ___ 3 453 2934)
7 154 361 is ___ 7 154 3615)
7 874 335 is ___ 7 843 4326)
4 335 114 is ___ 4 345 115

Comparing Numbers

3 218 625, 4 335 251, 3 118 323, 3 734 482

Least to Greatest

3 118 323, 3 218 625, 3 734 482, 4 335 251

3 245 871, 3 189 784, 4 324 845, 2 189 218

Greatest to Least

4 324 845, 3 245 871, 3 189 784, 2 189 218

Part 1 Order the numbers below from least to greatest

1 456 785, 1 148 982, 1 151 658

_____, _____, _____

2 694 152, 2 487 189, 2 451 874

_____, _____, _____

4 945 254, 3 955 452, 3 751 751

_____, _____, _____

Part 2 Order the numbers below from greatest to least

5 314 854, 5 341 785, 5 341 235, 5 314 824

_____, _____, _____, _____

7 264 872, 7 298 412, 7 299 452, 6 278 258

_____, _____, _____, _____

8 581 775, 8 538 785, 7 581 655, 8 538 999

_____, _____, _____, _____

Name: _____

26

Place Value Quiz

Part 1

Fill in the place value charts below

1) 1 363 635

2) 3 352 399

M	H Th	T Th	Th	H	T	O

M	H Th	T Th	Th	H	T	O

Part 2

What place value is the underlined number?

1) 2 132 5162) 42 6683) 4 342 6584) 3 514 2485) 42 66) 4 762 134

Part 3

Fill in the table below

	Number	# of Millions	# of Thousands	# of Hundreds	# of Tens	# of Ones
1	3 194 325					
2	6 418 474					
3	9 873 126					

Part 4

What is the standard form of the numbers below?

1) 4 000 000 + 300 000 + 20 000 + 7 000 + 100 + 40 + 7

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

Part 5

What is the expanded form of the numbers below?

1) 3 372 285

2) 7 512 383

3) 8 784 178

Part 6

Write the standard form of the written words below

1) Four million, three hundred and seventy-six thousand, two hundred and eighty-four

2) Nine million, seven hundred eighty-nine thousand, two hundred seventy-four

Part 7

Write the written form of the numbers below

1) 2 337 284

2) 5 716 517

3) 8 347 628

Part 8

Solve the riddles

Amanda's number has:

- 2 ones
- Double the number of hundreds than ones
- Half as many thousands as ones
- 3 less hundred thousands than hundreds
- 6 millions
- Half as many ten thousands than millions
- The same number of tens than hundred thousands

Answer

Name: _____

28

Curriculum Connection
N.3

Introduction to Factors

Instructions

List all of the factors for the numbers below

1) 12

_____, _____, _____, _____, _____, _____

2)

_____, _____



3) 21

_____, _____, _____

4) 16

_____, _____, _____, _____

5) 43

_____, _____

6) 29

_____, _____

7) 6

_____, _____, _____, _____

8) 10

_____, _____, _____, _____

9) 15

_____, _____, _____, _____

10) 20

_____, _____, _____, _____, _____, _____



Name: _____

29

Curriculum Connection
N.3

Find The Factors

**Instructions**

Circle all the factors of the number listed

1) 10

8 2 9 4
3 10 5

2) 8

8 2 6 4
3 1 7 5

3) 47

23 22 25
3 47 2

4) 18

1 9 6 4
8 2 3 18

5) 22

22 2 7 3
11 1 10 6

6) 25

2 2 25
13 5 4

7) 24

8 2 4 6
3 1 24 12

8) 58

2 30 29 3
6 1 29 58

9) 86

2 44 1 52
43 3 86 8

10) 63

3 21 2 63
9 1 15 7

Prime or Composite Number?

Instructions

1) Write the factors 2) Is the number a prime or composite number?

1) 27 Factors: _____ Prime or Composite	2) 12 Factors: _____ Prime or Composite
3) 7 Factors: _____ Prime or Composite	4) 17 Factors: _____ Prime or Composite
5) 28 Factors: _____ Prime or Composite	6) 41 Factors: _____ Prime or Composite
7) 33 Factors: _____ Prime or Composite	8) 35 Factors: _____ Prime or Composite
9) 73 Factors: _____ Prime or Composite	10) 81 Factors: _____ Prime or Composite

Finding Prime and Composite Numbers

Part 1

Follow the directions below



1) Circle the prime numbers below

11 15 7 18 3 5

12 19 33 49 52 45

67 90 81 74

2) Circle the composite numbers below

6 12 20 13 19 25

50 43 41 46 55 21

47 54 62 63

Part 2

Write the numbers from the pair under their respective category

	Pairs of Numbers	Prime	Composite
1)	22, 5		
2)	12, 17		
3)	23, 25		
4)	41, 49		
5)	59, 52		
6)	67, 16		
7)	73, 81		
8)	89, 95		

Prime vs Composite Numbers

Instructions

Colour prime numbers one colour and composite numbers a different colour



Type of Number	Colour
Composite Number	
Prime Number	



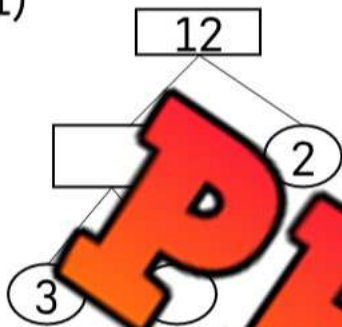
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Prime Factor Trees

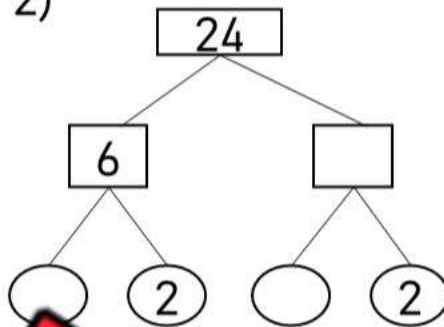
Instructions

Fill in the factor trees below

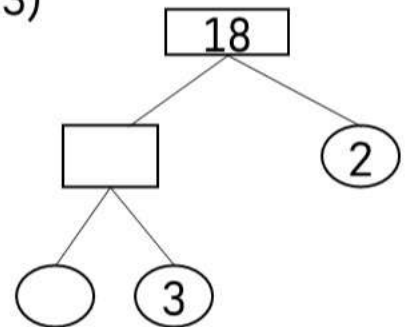
1)



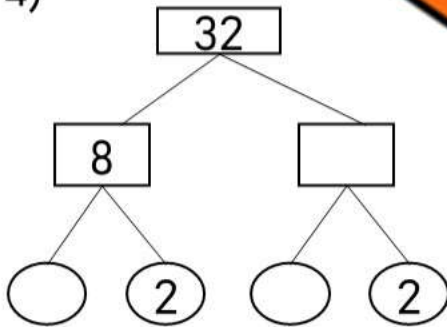
2)



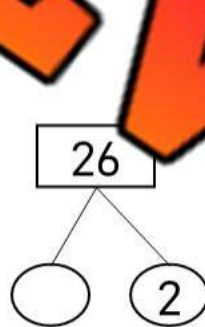
3)



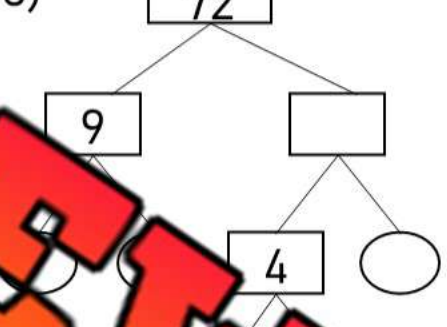
4)



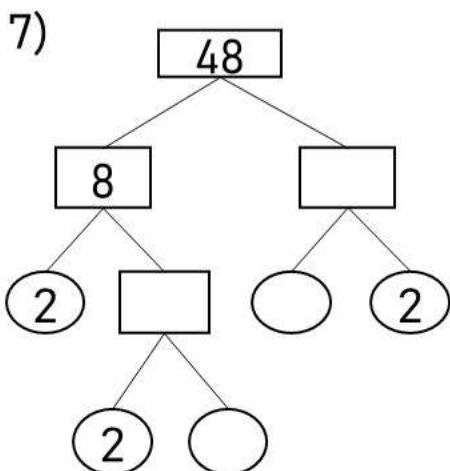
5)



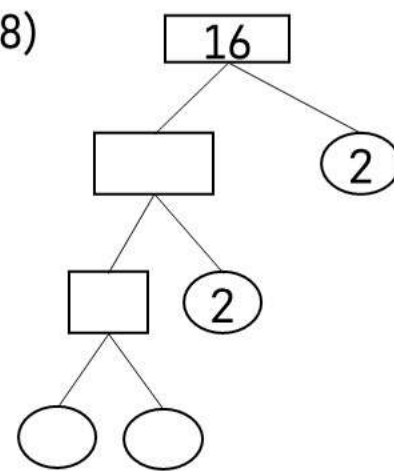
6)



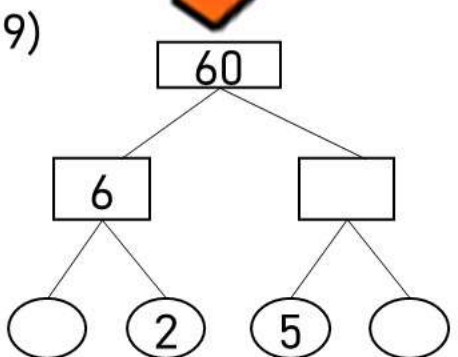
7)



8)



9)

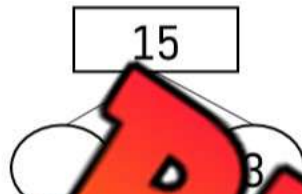


Prime Factor Trees

Instructions

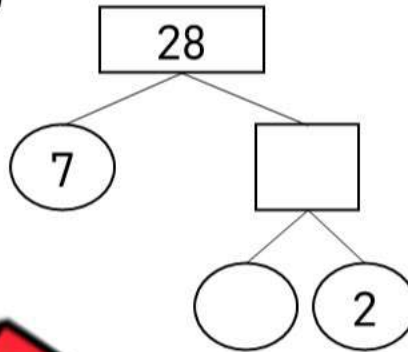
Fill in the factor trees below

1)

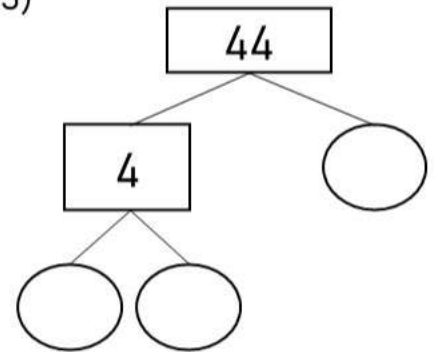


$$15 = ___ \times ___$$

2)

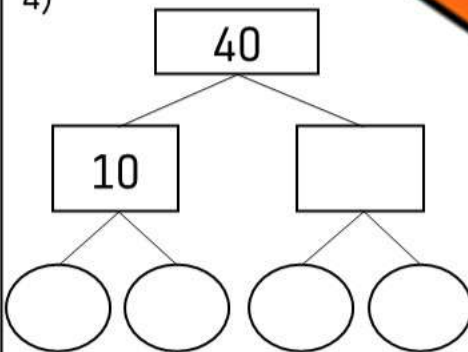


3)



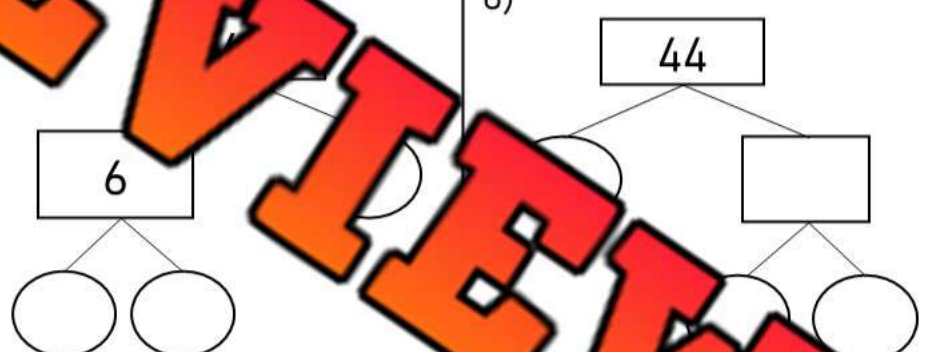
$$44 = ___ \times ___ \times ___$$

4)



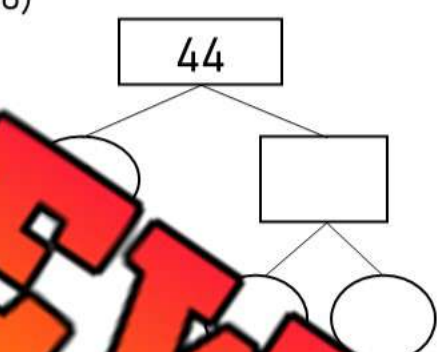
$$40 = ___ \times ___ \times ___ \times ___$$

6)



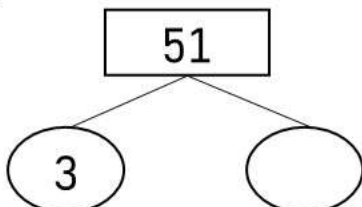
$$49 = ___ \times ___ \times ___$$

6)



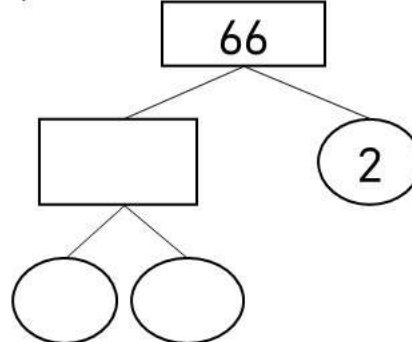
$$44 = ___ \times ___ \times ___$$

7)



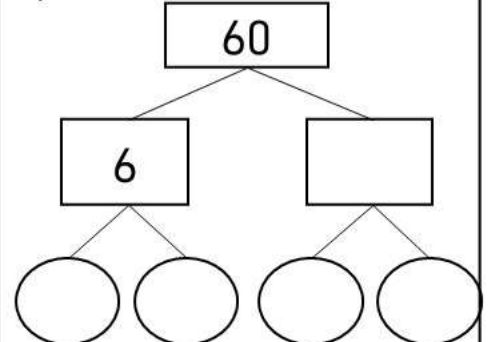
$$51 = ___ \times ___$$

8)



$$66 = ___ \times ___ \times ___$$

9)



$$60 = ___ \times ___ \times ___ \times ___$$

Name: _____

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Curriculum Connection
N.3

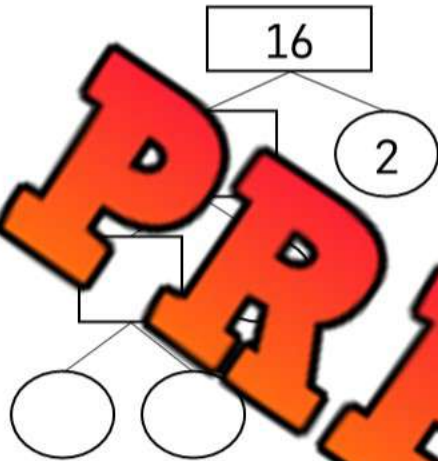
Prime Factor Trees

Instructions

Fill in the factor trees differently for the same number

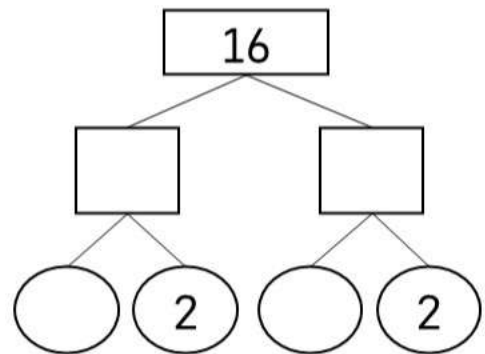


1)



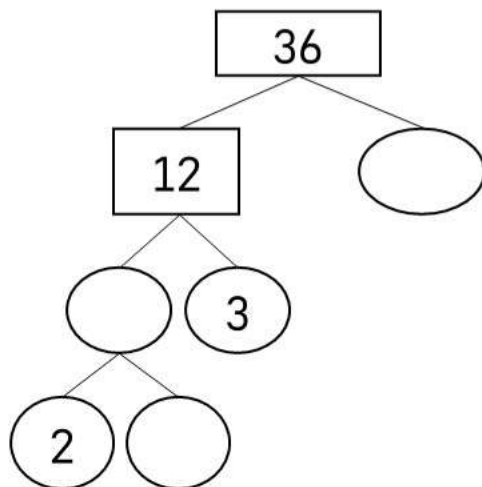
Equation

2)



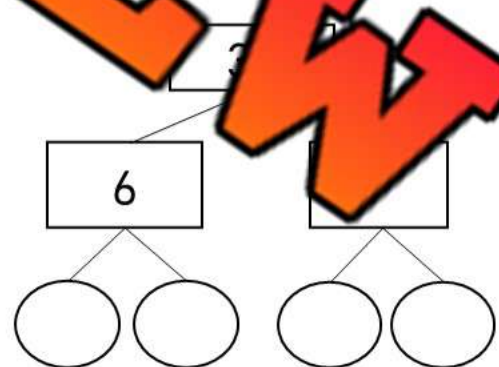
Equation

3)



Equation

4)



Equation

Name: _____

39

Curriculum Connection
N.3

Prime Factor Trees

Instructions

Draw your own factor trees below



1)

42

2)

16

3)

78

68

5)

50

6)

72

PREVIEW

Exit Cards

Cut Out

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

Name: _____

Draw your own factor trees below.

84

Name: _____

Draw your own factor trees below.

84

Name: _____

Draw your own factor trees below.

84

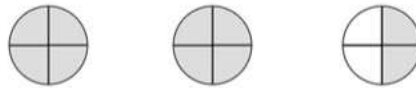
Name: _____

Draw your own factor trees below.

84

Mixed Numbers

A **mixed fraction** displays a whole number and a fraction to represent a value.
For example, if you have 2 full pizzas and $\frac{2}{4}$ of a pizza, the mixed fraction would be: $2\frac{2}{4}$



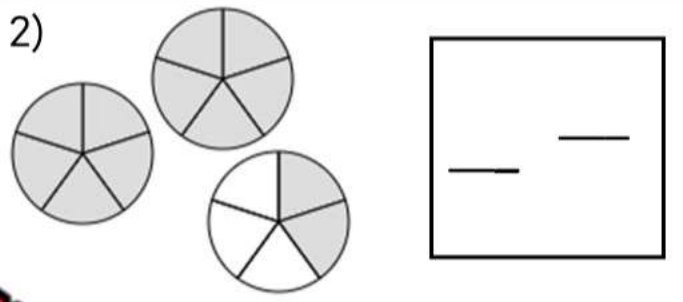
Questions

Write the fraction beside the visual fractions

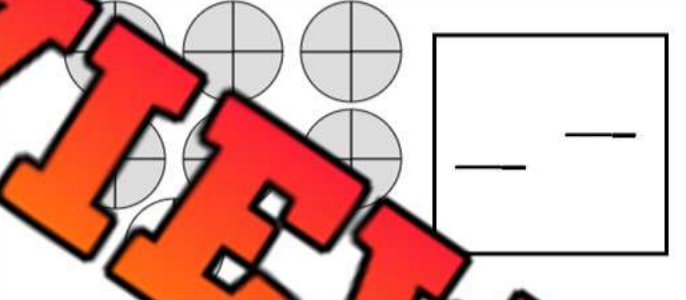
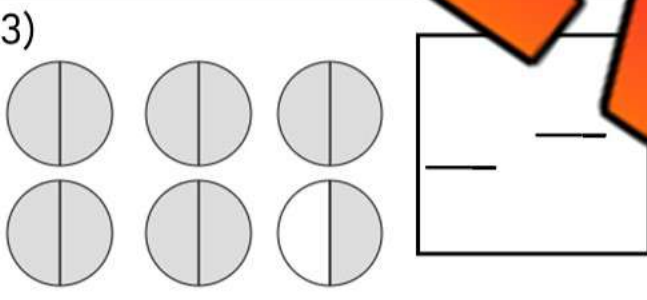
1)



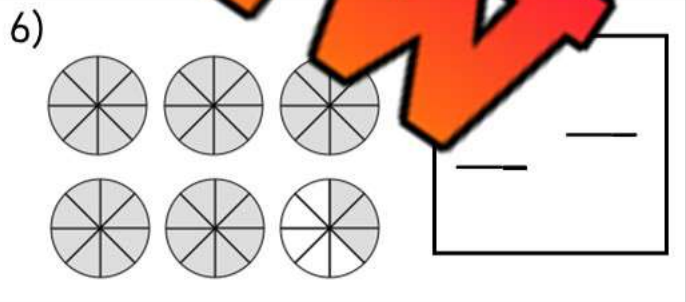
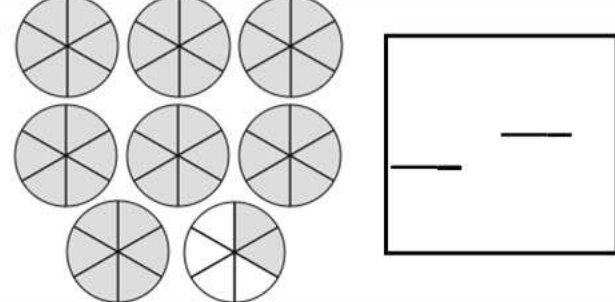
2)



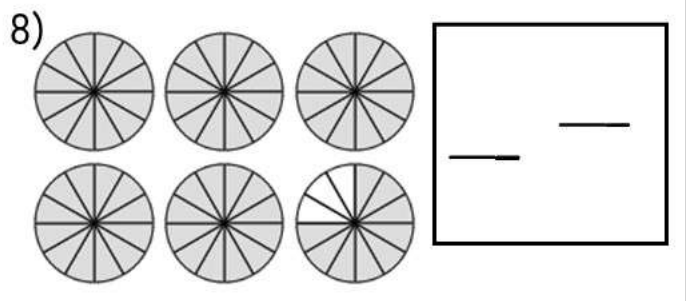
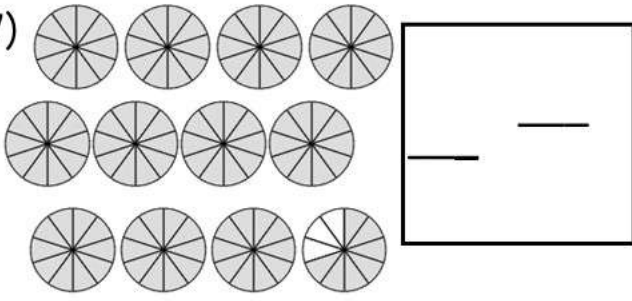
3)



5)



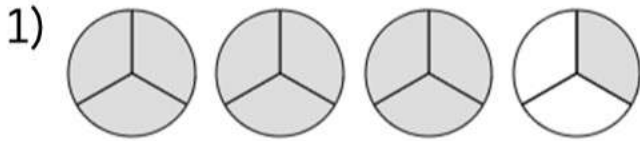
7)



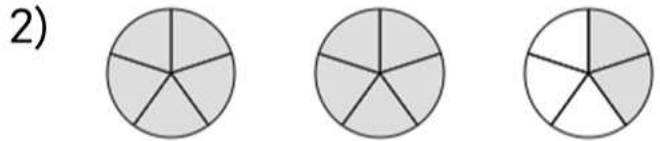
Improper Fractions

Instructions

Convert the mixed numbers into improper fractions



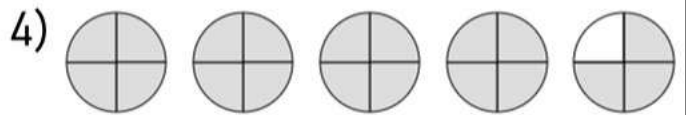
$$1 \frac{2}{3} = \underline{\hspace{2cm}}$$



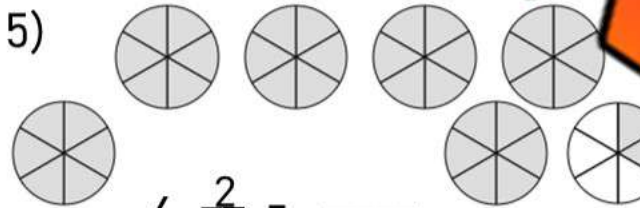
$$2 \frac{2}{5} = \underline{\hspace{2cm}}$$



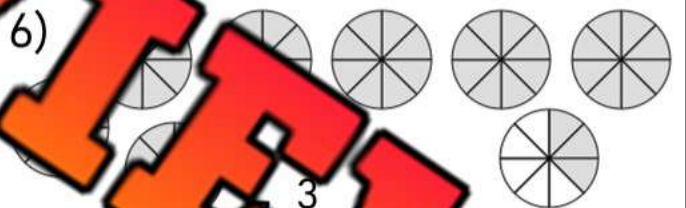
$$4 \frac{1}{2} = \underline{\hspace{2cm}}$$



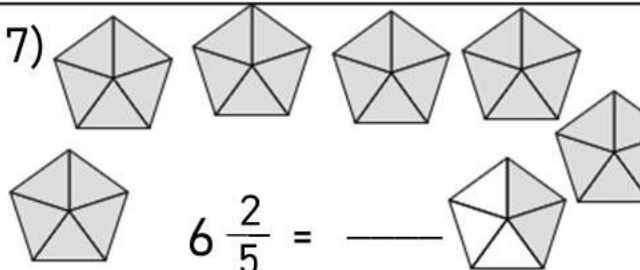
$$4 \frac{3}{4} = \underline{\hspace{2cm}}$$



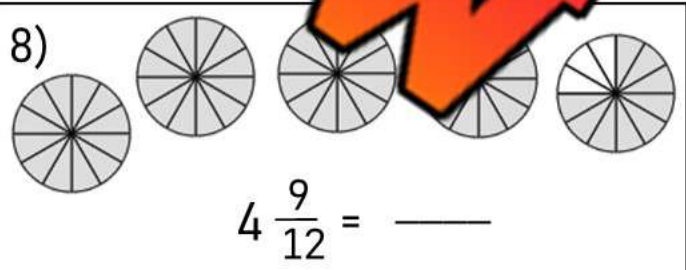
$$6 \frac{2}{6} = \underline{\hspace{2cm}}$$



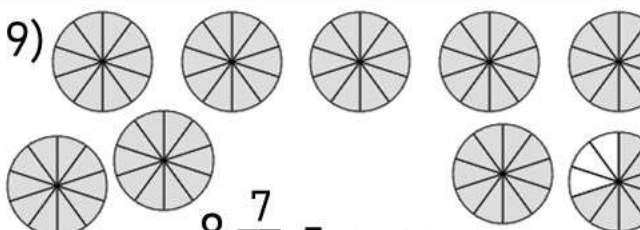
$$8 \frac{3}{8} = \underline{\hspace{2cm}}$$



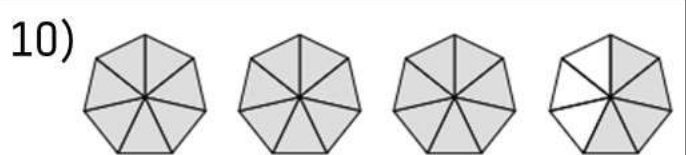
$$4 \frac{2}{5} = \underline{\hspace{2cm}}$$



$$3 \frac{9}{12} = \underline{\hspace{2cm}}$$



$$8 \frac{7}{10} = \underline{\hspace{2cm}}$$



$$3 \frac{4}{7} = \underline{\hspace{2cm}}$$

Mixed Numbers and Improper Fractions

Instructions

Shade in the fractions and write the mixed number

1)



$$= 2 \frac{1}{3}$$

2)



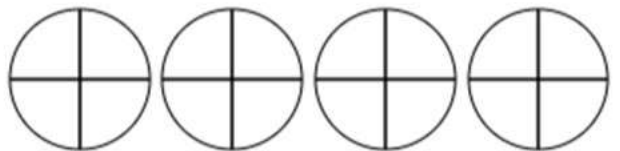
$$\frac{9}{2} =$$

3)



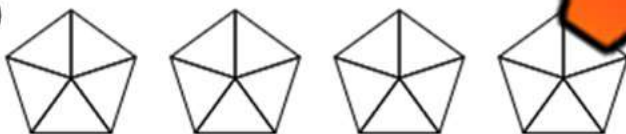
$$\frac{6}{4} =$$

4)



$$\frac{14}{4} =$$

5)



$$\frac{17}{5} =$$

6)



$$\frac{11}{6} =$$

7)



$$\frac{13}{3} =$$

8)



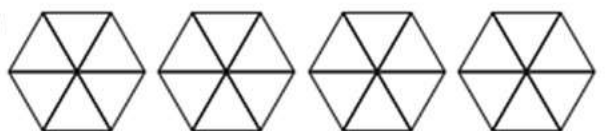
$$\frac{15}{4} =$$

9)



$$\frac{8}{3} =$$

10)

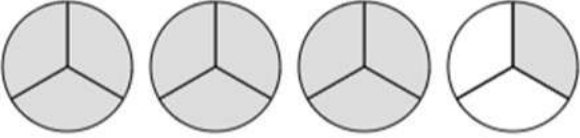
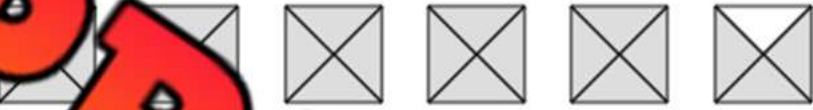
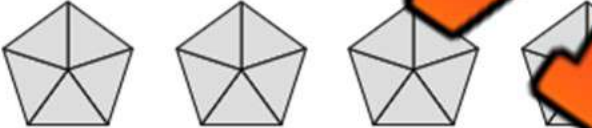
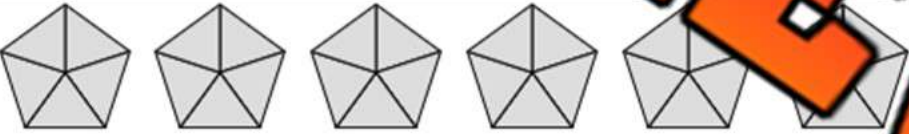
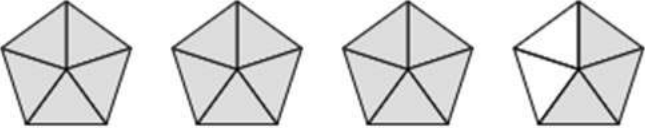
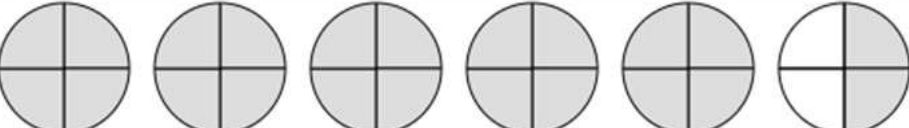
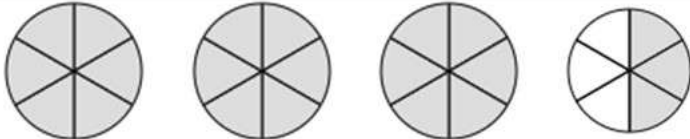


$$\frac{19}{6} =$$

Matching The Mixed Numbers With Improper Fractions

Instructions

Match the visual fractions with the improper fractions and mixed numbers

Visual Fractions		Mixed Numbers and Improper Fractions
1) _____ 		a) $5\frac{3}{4}$
2) _____ 		b) $\frac{18}{5}$
3) _____ 		c) $\frac{10}{3}$
4) _____ 		d) $4\frac{1}{5}$
5) _____ 		e) $6\frac{2}{4}$
6) _____ 		f) $\frac{21}{9}$
7) _____ 		g) $3\frac{4}{7}$
8) _____ 		h) $\frac{22}{4}$
9) _____ 		i) $5\frac{4}{5}$
10) _____ 		j) $\frac{23}{5}$

Converting Mixed Numbers to Improper Fractions

Instructions

Convert the mixed numbers to improper fractions

1) $5\frac{3}{4} =$

2) $4\frac{1}{5} =$

3) $5\frac{4}{5} =$

4) $2\frac{1}{2} =$

5) $3\frac{4}{7} =$

6) $6\frac{2}{4} =$

7) $4\frac{2}{4} =$

8) $5\frac{1}{2} =$

9) $2\frac{3}{7} =$

10) $5\frac{2}{3} =$

11) $3\frac{4}{8} =$

12) $2\frac{1}{2} =$

13) $4\frac{1}{5} =$

14) $2\frac{2}{7} =$

15) $4\frac{1}{4} =$

16) $7\frac{1}{2} =$

17) $6\frac{2}{4} =$

18) $8\frac{3}{4} =$

19) $4\frac{1}{2} =$

20) $3\frac{4}{5} =$

21) $5\frac{4}{5} =$

Exit Cards

Cut Out

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

Name: _____

Convert the improper fractions to mixed numbers.

1)

$\frac{2}{9}$

=

2) $\frac{41}{10} =$

3) $\frac{50}{9} =$

Name: _____

Convert the improper fractions to mixed numbers.

1)

$\frac{34}{9}$

=

2) $\frac{41}{10} =$

3)

=

Name: _____

Convert the improper fractions to mixed numbers.

1)

$\frac{34}{9}$

=

2) $\frac{41}{10} =$

3) $\frac{50}{9} =$

Name: _____

Convert the improper fractions to mixed numbers.

1)

$\frac{34}{9}$

=

2) $\frac{41}{10} =$

3) $\frac{50}{9} =$

Ordering Mixed Numbers

Instructions

Put the mixed numbers in order from least to greatest

1) $4\frac{2}{4}$ $2\frac{3}{7}$ $5\frac{3}{5}$ $2\frac{1}{7}$ $2\frac{6}{7}$

2) $1\frac{2}{5}$ $4\frac{2}{6}$ $7\frac{3}{7}$ $4\frac{5}{6}$

3) $2\frac{2}{7}$ $2\frac{3}{8}$ $4\frac{3}{4}$ $4\frac{1}{4}$

4) $8\frac{2}{6}$ $1\frac{3}{4}$ $3\frac{3}{4}$ $8\frac{3}{6}$

5) $6\frac{2}{5}$ $6\frac{1}{5}$ $3\frac{3}{9}$ $2\frac{2}{7}$

6) $4\frac{2}{5}$ $1\frac{2}{7}$ $1\frac{3}{7}$ $3\frac{3}{7}$ $4\frac{2}{5}$

7) $6\frac{4}{8}$ $6\frac{3}{8}$ $4\frac{1}{5}$ $4\frac{3}{5}$ $6\frac{7}{8}$

8) $8\frac{4}{6}$ $3\frac{1}{4}$ $3\frac{2}{4}$ $8\frac{3}{6}$ $1\frac{3}{4}$

Ratio

A **ratio** shows the relationship between two amounts.

Example



The ratio of apples to bananas is 1:7. For every apple you have, you have 7 bananas.

Questions

Write the ratios for the questions below



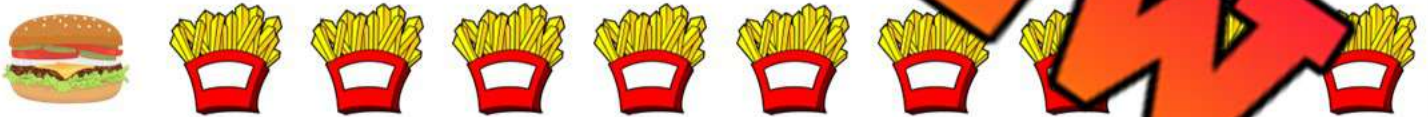
The ratio of cookie to cupcake is _____ : _____



The ratio of tomato to onion is _____



The ratio of pizza to drink is _____ : _____



The ratio of burger to fries is _____ : _____



The ratio of pineapple to strawberries is _____ : _____



The ratio of bread to jam is _____ : _____

Equivalent Ratios – Scaling Up and Down

A **ratio** shows the relationship between two amounts.

Example  

The ratio of cars to bikes is 2:8. There are four times as many bikes as cars. You could also say there are four times less cars than bikes. We can scale down the ratio and say the ratio of cars to bikes is 1:4. We can also scale up by saying the ratio of cars to bikes is 4:16. These are equivalent ratios.

Instruction: Look at the ratio of the images. Then write a scaled up and down equivalent ratio



Scaled Up

Scaled Down

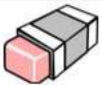
The ratio of skates to pucks is: _____ : _____.



Scaled Up

Scaled Down

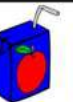
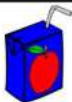
The ratio of laptops to televisions is: _____ : _____.



Scaled Up

Scaled Down

The ratio of erasers to pencils is: _____ : _____.



Scaled Up

Scaled Down

The ratio of juice to chips is: _____ : _____.



Scaled Up

Scaled Down

The ratio of basketballs to soccer balls is: _____ : _____.

Equivalent Ratios – Scaling Up and Down

Instructions

Circle two equivalent ratios for each of the questions below

1) 2:8	2:6	4:8	4:16	1:4	1:2
2) 2:12	1:8	4:22	1:6	1:4	4:24
3) 6:8	3:14	12:18	12:16	3:8	
4) 2:4	4:6	4:7	4:8	1:4	1:2
5) 10:12	20:24	5:16	5:10	10:24	5:6
6) 5:10	1:2	5:20	10:10	10:20	10:30
7) 4:14	2:10	8:28	2:7	7:2	8:24
8) 10:30	10:60	20:15	5:15	20:60	20:10
9) 2:20	6:60	6:80	1:20	1:30	1:10
10) 4:8	8:12	8:16	8:14	2:4	2:6

Memory Game: Matching Equivalent Ratios

Objective

What are we learning about?

Students will learn to identify and match equivalent ratios through a fun and interactive game.

Materials

What you will need for the activity.

- Memory game cards. Each card will have a different ratio. It can be matched to another equivalent ratio.
- A small table or clear space for the game.



Instructions

How you will complete the activity.

1. Divide the class into groups of 3 or 4. Give each group a set of Memory Game cards. (provided)
2. Have each group lay all the cards face down in a grid on a table or clear space.
3. The students take turns flipping over two cards at a time, trying to find a matching equivalent ratio.
4. If a student finds a match, they remove those cards from the grid and keep them.
5. If the cards do not match, they are turned back over, and the next student takes a turn.
6. The game continues until all the cards have been matched.
7. After the game, review the equivalent fractions with the class.

Name: _____

58

Curriculum Connection
N.5

Cards

Memory Game Cards

72:108

6:9

30:100

4:5

75:100

2:4

90:100

9:10

70:100

7:10

PREVIEW

Name: _____

59

Curriculum Connection
N.5

Cards

Memory Game Cards

45:90

5:10

PREVIEW

48:96

6:12

54:108

9:18

60:90

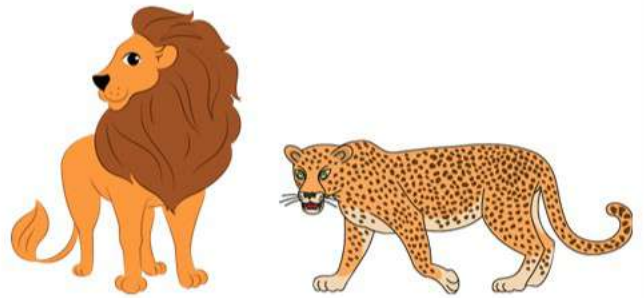
4:6

Ratios Word Problems – At The Zoo

Questions

1) Draw pictures 2) Use a solution statement 3) show your thinking

1) At the zoo, the ratio of lions to leopards is 4:1. There are 6 leopards. How many lions are there?



2) At the zoo, the ratio of goats to eagles is 1:1. There are 4 eagles. How many goats are there?



3) At the zoo, the ratio of alligators to crocodiles must be 3:7. There are 9 alligators and 25 crocodiles. How many crocodiles do they need to release?



b) How many alligators could they have gotten if they didn't want to give any crocodiles away?



Rates

A **rate** is a **comparison** between two numbers that are in **different** units. We use a colon for ratios, but we commonly use per when we describe a unit rate.

For example – John drove 200 km in 2 hours. His speed is a rate between km and hours. His unit rate is 100km per hour.

Questions

Write the rates for the questions below

1) 8 dollars for 2 burgers

Rate =



Unit Rate = 4 dollars per burger

2) 5 dollars for 10 pencils

Rate =

Unit Rate = _____

3) 10 dollars for 10 batteries

Rate =

Unit Rate = _____

4) 6 dollars for 3 coffees

Unit Rate = _____



5) 6 dollars for 12 chocolate bars

Rate =



Unit Rate = _____

6) 1 hour of swimming lessons

Rate =

Unit Rate = _____

7) Driving 600km in 4 hours

Rate =

Unit Rate = _____

8) Running 15km in 3 hours

Rate =

Unit Rate = _____



9) 300km on 20 litres of gas

Rate =



Unit Rate = _____

10) Growing 52cm every 4 years

Rate =

Unit Rate = _____

Equivalent Rates

Multiple Choice

Circle the equivalent rates below

1) 3 burgers per person

- a) 4 burgers for 10 people
- b) 8 burgers for 12 people
- c) 15 burgers for 5 people
- d) 6 burgers for 10 people



2) 5 pencils per 5 people

- a) 5 pencils for 8 people
- b) 8 pencils for 8 people
- c) 6 pencils for 12 people
- d) 10 pencils for 15 people



3) \$1 per person

- a) \$30 for 5 people
- b) \$25 for 3 people
- c) \$20 for 2 people
- d) \$50 for 10 people

4) 30 minutes per show

- a) 40 minutes for 3 shows
- b) 90 minutes for 3 shows
- c) 60 minutes for 3 shows
- d) 120 minutes for 2 shows

5) 3 games per day

- a) 12 games in 3 days
- b) 15 games in 5 days
- c) 10 games in 2 days
- d) 6 games in 3 days



6) 4 ice cubes per drink

- a) 12 ice cubes for 2 drinks
- b) 8 ice cubes for 3 drinks
- c) 16 ice cubes for 5 drinks
- d) 6 ice cubes for 3 drinks



7) 8 minutes per book

- a) 30 minutes for 3 books
- b) 50 minutes for 4 books
- c) 20 minutes for 3 books
- d) 32 minutes for 4 books

8) 2 pillows per person

- a) 4 pillows for 4 people
- b) 8 pillows for 8 people
- c) 16 pillows for 8 people
- d) 20 pillows for 5 people

9) 7 basketballs per team

- a) 21 basketballs for 3 teams
- b) 25 basketballs for 5 teams
- c) 10 basketballs for 3 teams
- d) 16 basketballs for 2 teams



10) 5 snacks per student

- a) 9 snacks for 3 students
- b) 13 snacks for 3 students
- c) 25 snacks for 5 students
- d) 16 snacks for 4 students



Factors, Fractions, and Ratios Quiz

Part 1

Follow the directions below

1) Circle the prime numbers below

90	55	49	18	81	5
74	19	33	7	52	45
15	59	67	11	3	13

2) Circle the composite numbers below

	54	13	62	75
48	1	51	55	21
12		25	51	43

Part 2

List all of the factors for the numbers below

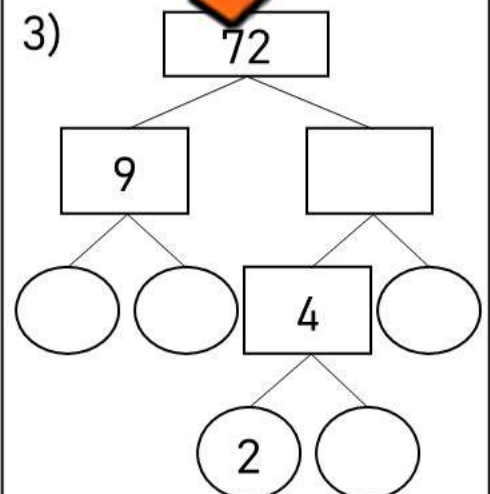
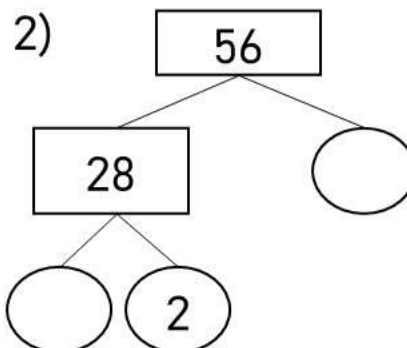
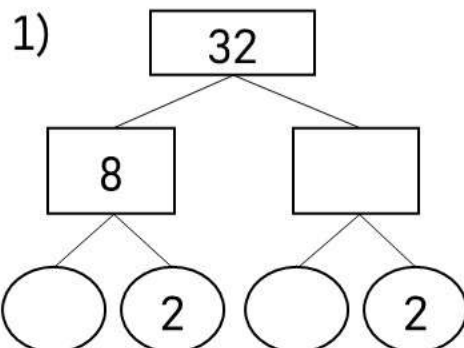
1) 12 _____, _____, _____, _____, _____

2) 25 _____, _____, _____, _____, _____

3) 21 _____, _____, _____, _____, _____

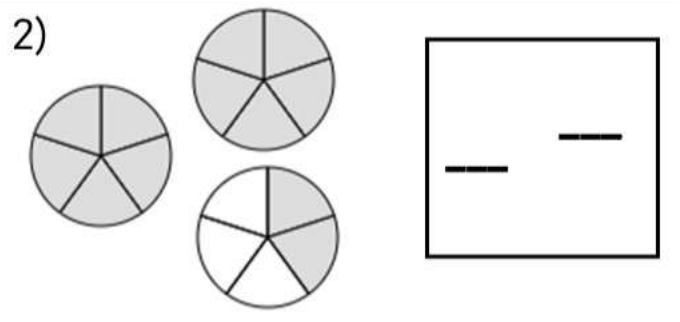
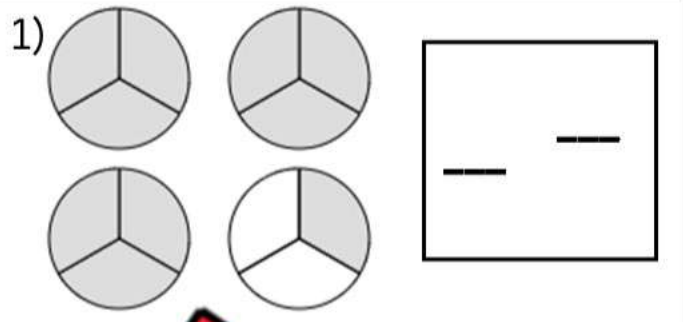
Part 3

Fill in the factor trees below



Part 4

Write the fraction beside the visual fractions



Part 5

Convert the improper fractions to mixed numbers

1) $\frac{13}{5} =$

2) $\frac{17}{4} =$

3) $\frac{11}{3} =$

Part 6

Convert the mixed numbers to improper fractions

1) $5\frac{3}{4} =$

2) $4\frac{1}{5} =$

3) $5\frac{4}{5} =$

Part 7

Put the mixed numbers in order from least to greatest

1) $4\frac{2}{4}$ $2\frac{3}{7}$ $5\frac{3}{5}$ $2\frac{1}{7}$

2) $3\frac{2}{4}$ $1\frac{2}{5}$ $4\frac{2}{6}$ $7\frac{3}{7}$ $4\frac{5}{6}$

Part 8

Put the improper fractions in order from least to greatest

$\frac{16}{5}$ $\frac{13}{5}$ $\frac{9}{5}$ $\frac{21}{4}$ $\frac{16}{4}$ $\frac{21}{5}$

Part 9

Circle the equivalent rates below

1) 2 burgers per person

- a) 4 burgers for 10 people
- b) 5 burgers for 10 people
- c) 15 burgers for 5 people
- d) 8 burgers for 2 people

2) 12 pencils per 4 people

- a) 4 pencils for 8 people
- b) 8 pencils for 4 people
- c) 4 pencils for 16 people
- d) 15 pencils for 5 people

3) \$15 per person

- a) \$30 for 2 people
- b) \$25 for 5 people
- c) \$20 for 4 people
- d) \$100 for 5 people

4) 20 minutes per show

- a) 40 minutes for 2 shows
- b) 90 minutes for 3 shows
- c) 60 minutes for 2 shows
- d) 80 minutes for 2 shows

5) 5 games per day

- a) 12 games in 3 days
- b) 15 games in 5 days
- c) 15 games in 3 days
- d) 6 games in 2 days

6) 6 ice cubes per 2 drinks

- a) 12 ice cubes for 6 drinks
- b) 12 ice cubes for 2 drinks
- c) 15 ice cubes for 5 drinks
- d) 4 ice cubes for 2 drinks

Part 10

Solve the ratio/rate questions below

1) At the zoo, the ratio of lions to leopards is 5:1. There are 3 leopards. How many lions are there?

2) At the zoo, the ratio of eagles to goats is 3:5. There are 6 eagles. How many goats are there?

3) The ratio of red candies to total candies is 4:24. What percentage of candies are red?

Place Value Using Decimals

Decimal numbers are any numbers that represent a value less than one. We use a decimal point to represent that a number can be less than one. We would represent a single cookie with the number 1, but we can still represent a quarter of a cookie by writing 0.25. The 0 is the whole number, while the numbers to the right of the decimal show how large the part of the whole is.

PLACE VALUE						
1	4	2	3	7	5	
Ones	Decimal	Ten Thousandths	Thousandths	Ten Thousandths	Hun. Thousandths	Millionths

Part 1

Write the place value for the underlined number?

1) 8.1 <u>2</u> 4589	2) 12 <u>3</u>	3) 2.4 <u>2</u> 17	4) 3.648 <u>8</u> 2
5) 2.4 <u>3</u> 35	6) 4.74 <u>7</u> 823	7) 1.32 <u>6</u> 1	8) 7.92 <u>6</u>
9) 2.5305 <u>2</u> 1	10) 7.754218	11) 5.12 <u>4</u>	12) 9.5381 <u>4</u> 2

Part 2

Fill in the place value table for the numbers below.

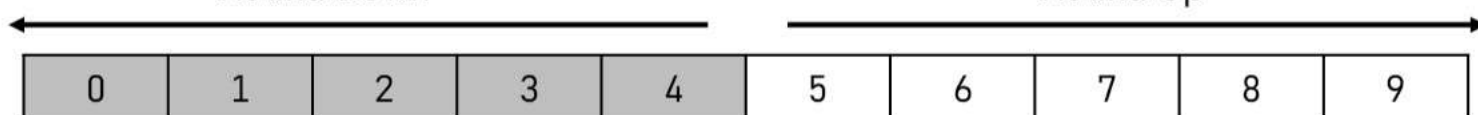
1) 1.579238							
Ones	Decimal	Tenths	Hundredths	Thousandths	Ten Thousandths	Hun. Thousandths	Millionths

2) 2.387219							
Ones	Decimal	Tenths	Hundredths	Thousandths	Ten Thousandths	Hun. Thousandths	Millionths

Rounding Decimal Numbers – Nearest Hundredths

Round Down

Round Up



Rounding to the nearest hundredth

 $0.753 \rightarrow 0.75$ $22.745 \rightarrow 22.75$

Part 1 Round the decimal number to the nearest hundredth

1) $0.825 \rightarrow$ _____	2) $0.571 \rightarrow$ _____	3) $0.227 \rightarrow$ _____
4) $0.346 \rightarrow$ _____	5) $0.702 \rightarrow$ _____	6) $0.103 \rightarrow$ _____
7) $0.182 \rightarrow$ _____	8) $0.169 \rightarrow$ _____	9) $0.338 \rightarrow$ _____

Part 2 Round the decimal number to the nearest hundredth

1) $2.843 \rightarrow$ _____	2) $2.346 \rightarrow$ _____	3) $5.331 \rightarrow$ _____
4) $4.426 \rightarrow$ _____	5) $3.244 \rightarrow$ _____	6) $7.755 \rightarrow$ _____
7) $13.271 \rightarrow$ _____	8) $15.844 \rightarrow$ _____	9) $19.945 \rightarrow$ _____
10) $25.841 \rightarrow$ _____	11) $34.911 \rightarrow$ _____	12) $23.217 \rightarrow$ _____
13) $41.439 \rightarrow$ _____	14) $52.278 \rightarrow$ _____	15) $77.213 \rightarrow$ _____

Terminating and Repeating Decimal

Terminating Decimal

- Decimals that come to an end

Example - $2/4 = 0.5$

Repeating Decimal

- Decimals that never end

Example - $2/3 = 0.66666... \text{ or } 0.\overline{6}$

We can use a line over the repeating number or number pattern to show it repeats forever.

Part 1 Write the decimal a repeating or terminating decimal?

1) 0.6		6) 0.9	
2) 0.3		7) $0.\overline{72}$	
3) $0.\overline{7}$		8) $0.41\overline{6}$	
4) 0.25		9) $0.\overline{8}$	
5) $0.\overline{6}$		10) 0.8	

Part 2 Write the decimals below - use a line to show repeating decimals.

1) $\frac{1}{3} = 0.\overline{3}$	2) $\frac{6}{10} =$	3) $\frac{1}{2} =$
4) $\frac{2}{3} =$	5) $\frac{8}{11} =$	6) $\frac{3}{9} =$
7) $\frac{1}{4} =$	8) $\frac{11}{12} =$	9) $\frac{4}{12} =$
10) $\frac{3}{5} =$	11) $\frac{4}{6} =$	12) $\frac{1}{12} =$
13) $\frac{5}{8} =$	14) $\frac{1}{8} =$	15) $\frac{7}{8} =$

Exit Cards

Cut Out

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

Name: _____

Is the decimal a repeating or terminating decimal?

1) 0.91

2) 0.59

Write the decimals below – use a line to show repeating decimals

$$\frac{15}{2} =$$

$$\frac{7}{3} =$$

Name: _____

Is the decimal a repeating or terminating decimal?

1) 0.916

2) 0.59

Write the decimals below – use a line to show repeating decimals

$$\frac{15}{2} =$$

$$\frac{7}{3} =$$

Name: _____

Is the decimal a repeating or terminating decimal?

1) 0.916

2) 0.59

Write the decimals below – use a line to show repeating decimals

$$\frac{15}{2} =$$

$$\frac{7}{3} =$$

Name: _____

Is the decimal a repeating or terminating decimal?

1) 0.916

2) 0.59

Write the decimals below – use a line to show repeating decimals

$$\frac{15}{2} =$$

$$\frac{7}{3} =$$

Converting Fractions and Decimals

Part 1

Fill in the table with the converted decimal and fraction.

Fraction	Decimal
	.10
	.20
50/100	
	.70
80/100	
	.90
100/100	

Fraction	Decimal
15/100	
	.28
36/100	
	.48
	.62
68/100	
	.82

Part 2

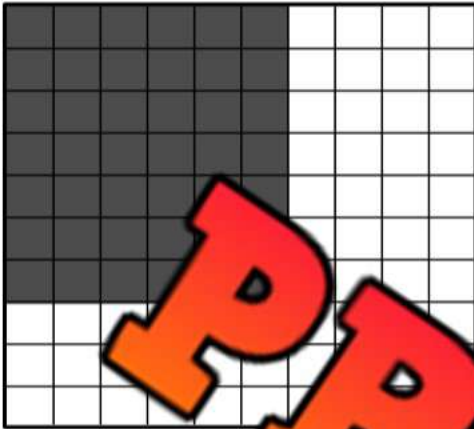
Convert the following fractions and decimals.

0.22 = /100	0.51 = /100	0.44 = /100	0.88 = /100
42/100 =	66/100 =	39/100 =	97/100 =
31/100 =	72/100 =	0.81 = /100	0.91 = /100

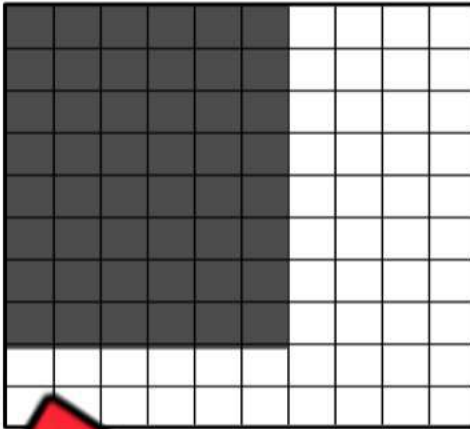
Fractions, Decimals, and Percents

Part 1

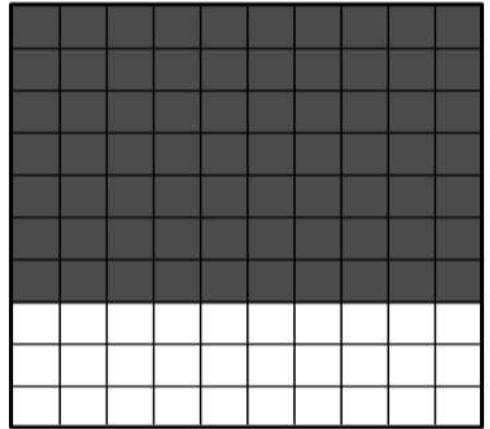
What fraction, decimal and percent of the array is shaded in?



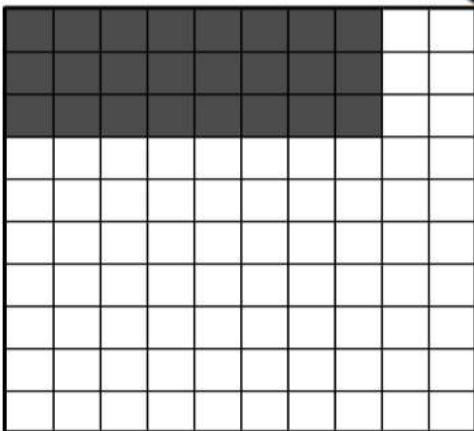
Fraction	Decimal	Percent



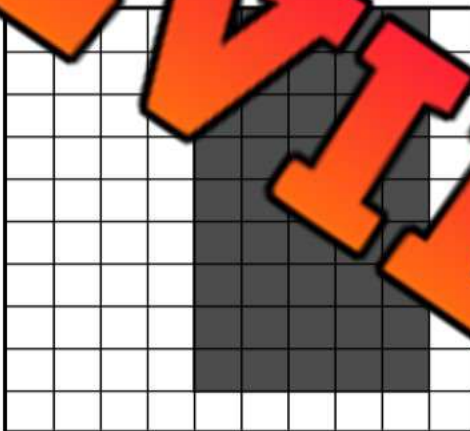
Fraction	Decimal	Percent



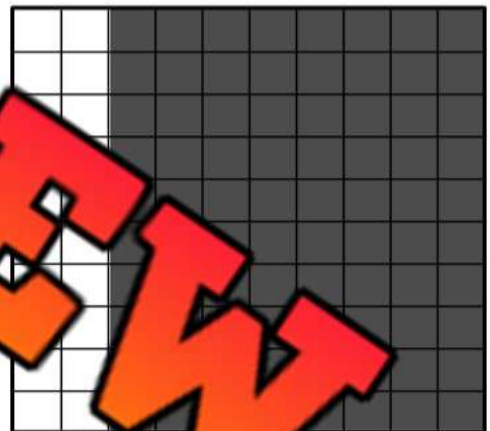
Fraction	Decimal	Percent



Fraction	Decimal	Percent



Fraction	Decimal	Percent



Fraction	Decimal	Percent

Part 2

Answer the word problems below

- Hank got 71 out of 100 on his math test. What percent did he get on his test?
- Wendy scored 23 out of 50 of her three point shots. What was her three point percentage?

Fractions, Decimals, and Percents

Part 1

Fill in the table with the converted decimal, fraction, and percent

Fraction	Decimal	Percent
100/1000		10.0%
200/1000		20.0%
	0.300	%
400/1000		40.0%
500/1000		%
		60.0%
	0.600	%
	0.800	%
900/1000		%
	1.000	%

Part 2

Convert the following fractions, decimals and percent

$138/1000 =$ %	$536/1000 = 0.$	$42.4\% =$ /1000	$798/1000 =$ %
$56.2\% =$ /1000	$161/1000 =$ %	$871/1000 = 0.$	$0.938 =$ %
$0.356 =$ %	$0.682 =$ %	$71.4\% = 0.$	$782/1000 = 0.$

Exit Cards

Cut Out

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

Name: _____

Fill in the table with the converted decimal, fraction, and percent

Fraction	Decimal	Percent
151/1000		
363/1000		
	0.675	
		78.0%
		92.8%

Name: _____

Fill in the table with the converted decimal, fraction, and percent

Fraction	Decimal	Percent
151/1000		
363/1000		
	0.427	
	0.675	
		78.0%
		92.8%

Name: _____

Fill in the table with the converted decimal, fraction, and percent

Fraction	Decimal	Percent
151/1000		
363/1000		
	0.427	
	0.675	
		78.0%
		92.8%

Name: _____

Fill in the table with the converted decimal, fraction, and percent

Fraction	Decimal	Percent
151/1000		
363/1000		
	0.427	
	0.675	
		78.0%
		92.8%

Sport Statistics – Fractions, Decimals, and Percents

Part 1 Baseball statistics – What are these player's percentages from the 2000 season

1) Mike Trout had 200 at bats in 2020. He had $56/200$ hits, $41/200$ runs, and $17/200$ home runs. This means for every 200 at bats, he would have 56 hits, 41 runs, and 17 home runs.

	Hits	Runs	Home Runs
Totals - Fraction	$56/200$	$41/200$	$17/200$
Decimal to thousandths			
Percent			

If Trout had 100 at bats, how many home runs would he have? _____

2) Mookie Betts had 300 at bats in 2020. He had $98/300$ hits, $58/300$ runs, and $27/300$ home runs. This means for every 300 at bats, he would have 98 hits, 58 runs, and 27 home runs.

	Hits	Runs	Home Runs
Totals - Fraction	$98/300$	$58/300$	$27/300$
Decimal to thousandths			
Percent			

If Betts had 100 at bats, how many hits would he have? _____

Part 2 Basketball statistics – LeBron James shooting percentages

LeBron James and the LA Lakers won a Championship title in 2020. Find his shooting percentages by filling in the table below.

	2 pointers	3 pointers
Fraction	$214/382$	$44/119$
Decimal to thousandths		
Percent		

a) If James had taken only 100 3 pointers, how many would he have made? _____

b) If James had taken 300 3 pointers, how many would he have made? _____

c) The average NBA player shoots 46% from 2 pointers. How much better is LeBron? ____%

Comparing Decimals

Part 1

Compare the following numbers

1) 0.157 0.232

2) 0.372 0.921

3) 0.347 0.338

4) 0.257 0.253

5) 0.264 0.812

6) 0.567 0.521

7) 0.157 0.156

8) 0.386 0.462

9) 0.328 0.724

10) 0.157 0.152

11) 0.624 0.347

12) 0.349 0.812

13) 0.157 0.159

14) 0.927 0.32

15) 0.759 0.532

Part 2

Compare the following numbers

- 1) Nick and Ryan both ran in the 200 metre race last week. Nick ran it in 34.413 seconds and Ryan ran it in 34.903 seconds. Who ran it faster?



- 2) Lamelo Ball scores 18.721 points a game while his brother Lonzo Ball scores 18.217 points a game. Who scores more points a game?



- 3) Jacob jumped 3.783m in long jump. Owen jumped 3.859m. Who jumped further?



Name: _____

90

Curriculum Connection
N.1

Ordering Decimals

0.2721, 0.1215, 0.5487, 0.9232

Least to Greatest

0.1215, 0.2721, 0.5487, 0.9232

5.2242, 0.3263, 6.9317, 8.5229

Greatest to Least

8.5229, 6.9317, 5.2242, 0.3263

Part 1

Order the numbers below from least to greatest

1) 0.5253, 0.139, 0.4357, 0.1113

_____, _____, _____, _____

2) 0.4227, 0.1259, 0.4278, 0.4106

_____, _____, _____, _____

3) 0.6421, 0.1, 0.6412, 0.1

_____, _____, _____, _____

4) 1.4254, 2.4126, 1.4308, 2.6216

_____, _____, _____, _____

5) 11.4564, 11.4583, 24.2165, 24.62

_____, _____, _____, _____

6) 51.1214, 51.1128, 51.1312

_____, _____, _____, _____

Part 2

Order the numbers below from greatest to least

1) 0.6225, 0.6641, 0.6703, 0.6122

_____, _____, _____, _____

2) 0.3321, 0.338, 0.1, 0.1398

_____, _____, _____, _____

3) 1.4123, 1.6529, 1.8723, 1.9432

_____, _____, _____, _____

4) 2.1282, 2.1281, 1.1415, 1.3762

_____, _____, _____, _____

5) 14.2851, 14.2729, 14.3496, 14.2838

_____, _____, _____, _____

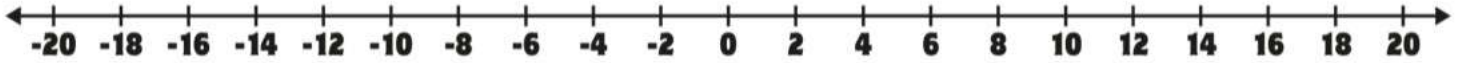
6) 19.7228, 19.6625, 19.6415, 19.6371

_____, _____, _____, _____

Graphing Integers & Opposite Integers

Part 1

Graph each integer by writing the letter on the number line



a) 0

e) -18

i) 3

m) -6

b) 6

f) -17

j) 15

n) -7

c) 10

g) 20

k) -20

o) -10

d) 18

h) 7

L) -3

p) 17

Part 2

Which letter pairs are opposites?
(hint: an opposite integer is the same number but with the opposite sign – ex. 3 and -3)

1) _____

2) _____

3) _____

4) _____

5) _____

6) _____

7) _____

8) _____

Part 3

Write the opposite integer below

1) 8

2) 12

3) -18

4) 14

5) -4

6) -10

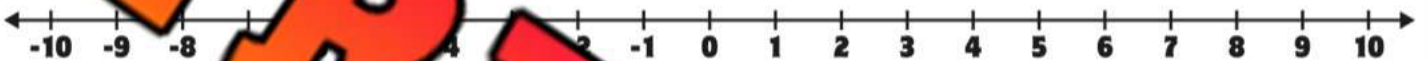
Introduction to Integers

Integers are whole numbers that can be positive, negative or zero. Integers do not include fractions or decimals. We use positive integers a lot, but we sometime need to use negative integers, like when we are measuring the temperature outside in the winter.

Questions

Use the number lines to solve the questions

- 1) The temperature at 6am was -8°C . At noon, the temperature was 2°C . Circle the temperature on the number line. How much did the temperature rise?



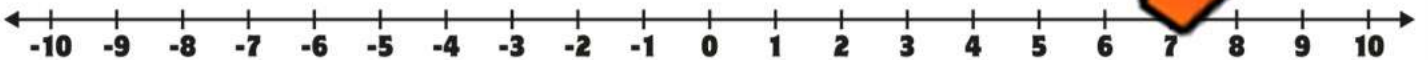
Rise in temperature = _____

- 2) Steve was in debt to his brother for \$10. He was able to make some money by cutting his neighbour's grass. He paid his brother back and has \$8 left. How much did he make cutting grass?



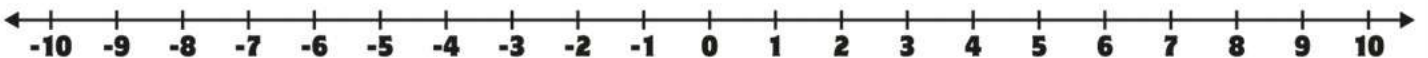
Earnings from cutting grass = \$ _____

- 3) A running back in football earned -7 yards in the first half of his game and 9 yards in the second half. How many yards did he get in the second half?



Yards in the second half = _____

- 4) Tiger Woods scored a -5 in his third round of a golf tournament. He scored $+8$ in the fourth round. How many more shots did he take in the fourth round?



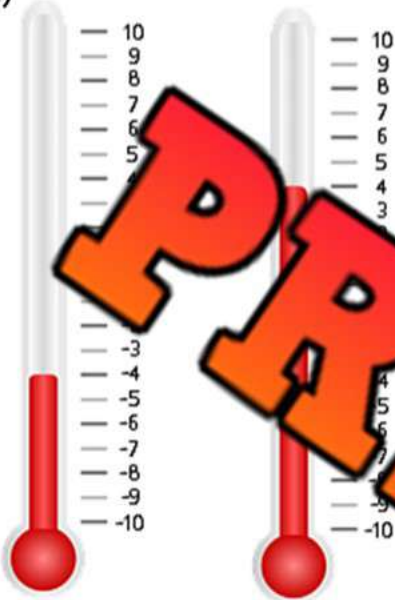
Extra shots in the fourth round = _____

Integers – Temperatures – Vertical Number Line

Instructions

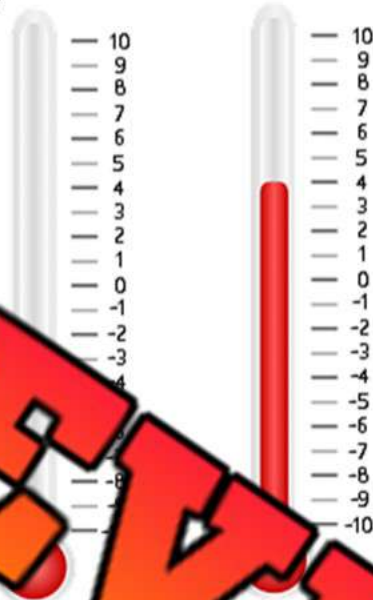
Use the number lines to solve the questions

1)



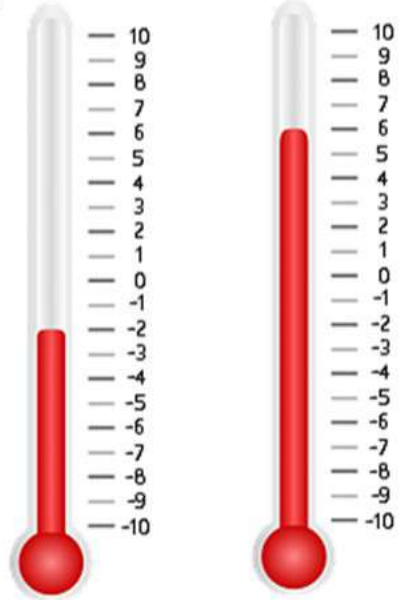
Difference = _____

2)



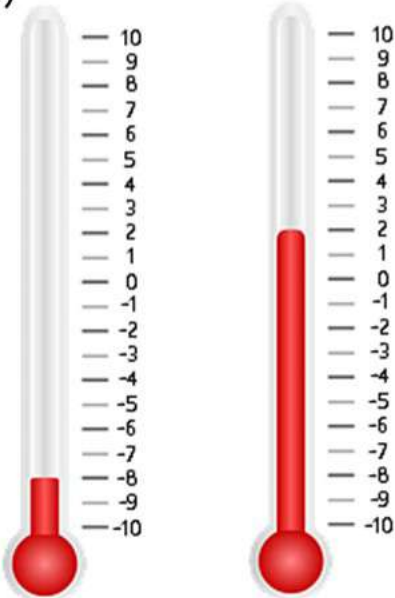
Difference = _____

3)



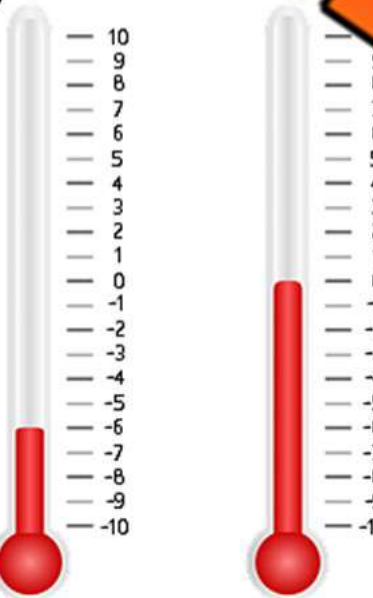
Difference = _____

4)



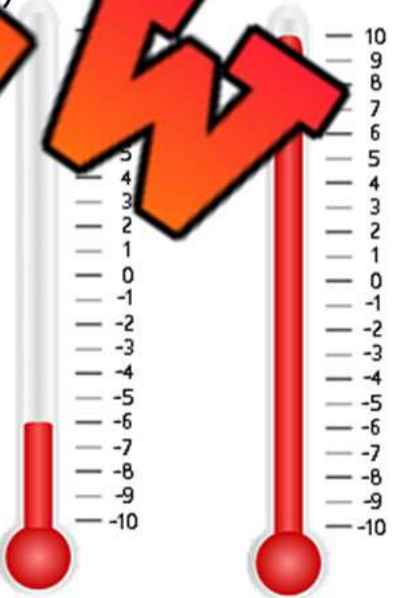
Difference = _____

5)



Difference = _____

6)



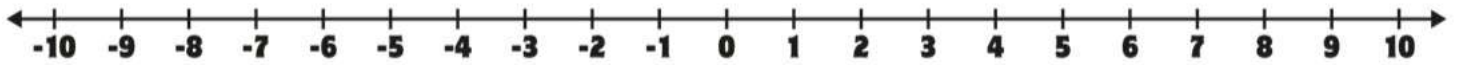
Difference = _____

Comparing Integers

**Instructions**Use the $<$, $>$, $=$ to compare the integers below

- 1) 8 -6 2) -5 4 3) -7 3
- 4) -5 -4 5) 1 -6 6) -3 -7
- 7) -3 8 8) 3 8 9) 8 6
- 10) -5 -7 11) -4 -2 12) 2 4
- 13) -7 2 14) -7 -8 15) 2 -4
- 16) 2 -3 17) -6 -3 18) -1 -9
- 19) -3 0 20) -9 -6 21) -2 -2
- 22) 6 -9 23) -5 -6 24) -3 6

Ordering Integers – Least to Greatest

**Part 1**

Arrange the integers from least to greatest

1) 5, 3, -6, -9, 7

2) -4, 4, 8, 2, -9

3) 4, -5

4) -5, -4, -6, -2, -7

5) 5, -3, -8, -5, -1, 6, 0, 2

7) 4, 0, -2, -9, -6

8) 11, -8, -3, -5

9) 15, -23, -12, -16, 7

10) -15, -11,

Part 2

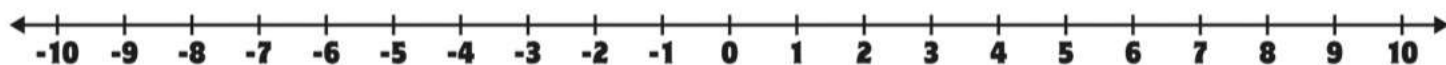
Answer the word problem below

The average temperatures for the first 5 months of the year are recorded below.
Arrange the months in order of coldest to warmest.

January = -5°C February = -8°C March = -3°C April = 2°C May = 10°C

_____, _____, _____, _____, _____

Ordering Integers – Least to Greatest

**Part 1**

Circle the largest integer

1) 7, 3, -8, -2, 1

2) -2, -3, -1, -4, 0

3) 5, -1, 4

4) -5, 2, -3, -1, 5

5) 6, 2, -5,

6) 7, 6, -9, -4, 0

Part 2

Circle the smallest integer

1) 5, 2, -5, -8, 7

2) -4, 7, 2, -9

3) 0, 3, -4, 9, -6

4) -7, -6, -3

5) 3, 2, -2, -3, 0

6) -1, -3,

Part 3

Arrange the integers from greatest to least

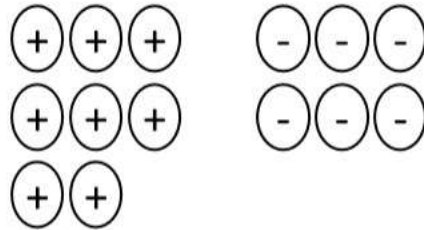
1) 7, 3, -6, -8, 5

2) 0, -4, 8, 1, -9

3) 1, 3, -3, 6, -7

4) -2, -4, -8, -1, -5

Adding Integers - Visuals

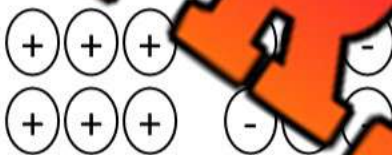


$$8 + (-6) = 2$$



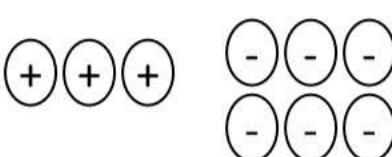
Instructions: Use the visual models to solve the equations below. What is the difference?

1)



$$\underline{\quad} + \underline{\quad} = \underline{\quad}$$

4)



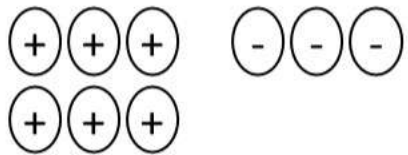
$$\underline{\quad} + \underline{\quad} = \underline{\quad}$$

5)



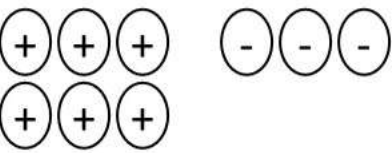
$$\underline{\quad} + \underline{\quad} = \underline{\quad}$$

3)



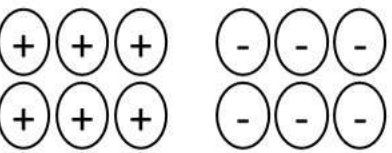
$$\underline{\quad} + \underline{\quad} = \underline{\quad}$$

7)



$$\underline{\quad} + \underline{\quad} = \underline{\quad}$$

8)



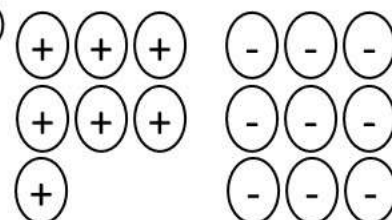
$$\underline{\quad} + \underline{\quad} = \underline{\quad}$$

9)



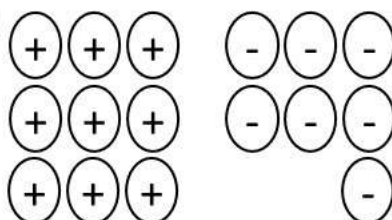
$$\underline{\quad} + \underline{\quad} = \underline{\quad}$$

10)



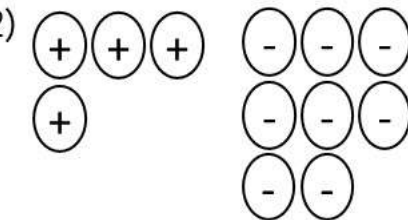
$$\underline{\quad} + \underline{\quad} = \underline{\quad}$$

11)



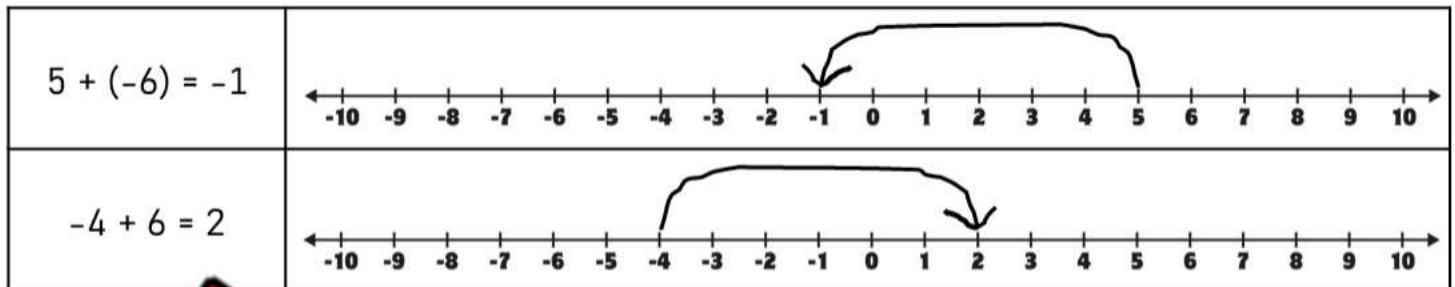
$$\underline{\quad} + \underline{\quad} = \underline{\quad}$$

12)

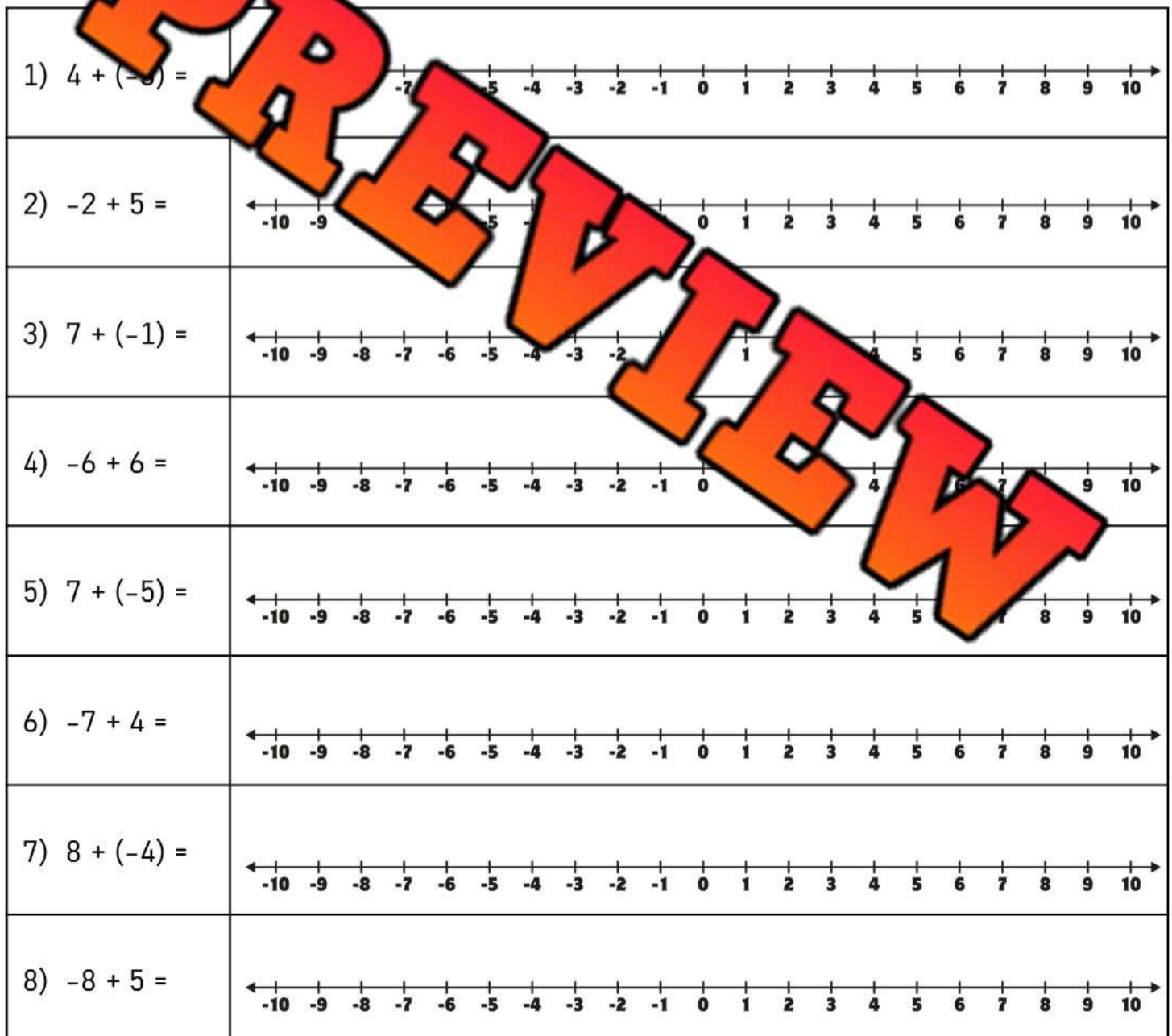


$$\underline{\quad} + \underline{\quad} = \underline{\quad}$$

Adding Integers – Using Number Lines



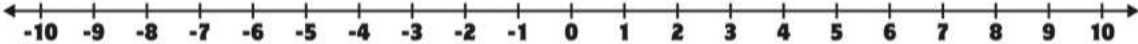
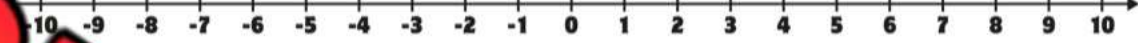
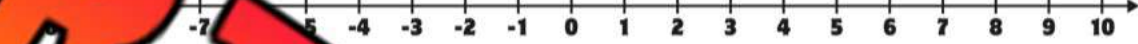
Instruction: Use the number lines to solve the questions



Adding Integers – Using Number Lines

Part 1

Use the number lines to solve the questions

1) $7 + (-4) =$	
2) $-9 + 10 =$	
3) $-5 + (-4) =$	
4) $-7 + 11 =$	
5) $8 + (-12) =$	
6) $-10 + 15 =$	

Part 2

Answer the word problems below. Write the equation.

1) A football team loses 6 yards on one play and then loses 5 yards on the next play. How many total yards did they lose?

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



2) In golf, Roger played two rounds. He scored a +4 and a -6. What was his total score?

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



Adding Integers – Using Number Lines

-20	-19	-18	-17	-16	-15	-14	-13	-12	-11	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	----	----	----	----	----	----	----	----	----

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
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Part 1

Solve the questions below

1) $5 + (-)$	6) $-15 + 11 + (-5) =$
2) $18 + (-6) =$	7) $17 + (-6) + (-8) =$
3) $-12 + 5 + (-6) =$	8) $-15 + (-5) + 11 =$
4) $13 + (-6) + (-4) =$	9) $11 + (-7) =$
5) $-11 + 4 + (-2) =$	10) $10 + (-)$

Part 2

Answer the word problems below. Write the equation and solution

- You take 9 steps forwards, 7 steps backwards, another 5 steps forwards, and another 4 steps forwards. How far have you moved in steps?
- The Big Dipper rollercoaster climbs straight up 30m above ground level before it drops 18m. Next, it climbs another 22m before it drops 17m. When the ride is over, the participants are how much higher than ground level?



Math Jeopardy – Adding Integers

Objective

What are we learning about?

Students will practice adding integers and solve word problems involving addition in a fun and engaging way.

Materials: What you 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 point value.
4. Read the question aloud from the point 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.

Jeopardy Questions

Ask students the questions below:

\$100	\$200	\$300	\$400	\$500
$-13 + 27$	$12 + (-8) + 4$	$-16 + (-5) + 11$	$5 + (-12) + 8 + (-3)$	$-20 + 15 + (-5) + 18$
$24 + (-6)$	$-19 + 5 + (-2)$	$14 + (-7) + (-4)$	$-8 + 12 + (-9) + 3$	$25 + (-13) + (-7) + 10$
$-37 + 25$	$-1 + (-3) + 8$	$-4 + (-6) + 13$	$-10 + 14 + (-7) + 6$	$30 + (-10) + (-12) + 5$
You gain 8 points and then lose 2 points. How many points remain?	You earn 15 points, then spend 5 points. How many \$ remains?	You gain 5 points, lose 10 points, and gain 3 points. How many points remain?	You take an elevator up 8 floors, down 5 floors, and up 3 more. What floor are you on?	A plane ascends 20m, descends 15m, ascends 25m, and descends 10m. How high is it above ground?
You lose 6 points and then gain 4 points. How many points remain?	You find \$20 and then spend \$14. How many \$ remains?	You lose 28 points and then gain 6 points. How many points remain?	A person goes up 12 steps, down 8 steps, and up 5 steps. How many steps have you climbed?	A balloon rises 10m, descends 5m, rises 15m, and descends 10m. How high is it above the starting point?
You gain 19 points and then lose 7 points. How many points remain?	You earn \$18 and then spend \$12. How many \$ remains?	You gain 5 points and then lose 9 points. How many points remain?	A rollercoaster climbs 25m, descends 15m, and climbs another 20m. How high is it above ground level?	You gain 25 points, lose 10 points, gain 15 points, and lose 5 points. What is your final score?

Ordering Integers and Decimals

Questions

Put the integers and decimals in order from least to greatest

1) 8, 6.412, -5, -9, 4.214

8) 9, 9.456, -5, -4, 9.526

2) 8.43, 2, -2, -6, 6.414

9) 4, 3.452, -5, -3, 3.747

3) 7.372, 7.25, -5, 0

10) 2, -2, 4.507, -3, 0

4) 6.323, 6.452, 6.178, -7, -4

11) 8.4, -8, -9, -7

5) 5, 5.001, -5, 5.002, 0

12) 0, 5.45, 39

6) 3.435, 3.441, -4, -9, 3.214

13) 6, 6.304, -6, 6.039, 0

7) 5, 4.217, -5, 9.259, 4

14) 4, 5.555, -9, -1, 4.001

Comparing Integers, Decimals, and Fractions

Part 1

Circle the larger value:

1) 0.250 $\frac{4}{6}$	2) -2 -5	3) 0.50 $\frac{3}{8}$	4) -5 0.101
5) -4 $\frac{1}{4}$	6) 0 $\frac{3}{8}$	7) -2 0.750	8) $\frac{1}{2}$ 0.681
9) $\frac{5}{8}$	10) 3 -9	11) $\frac{2}{5}$ -2	12) 0.25 $\frac{3}{5}$
13) -1 0	14) 0.5 $\frac{2}{8}$	15) -2 $\frac{2}{8}$	16) $\frac{1}{5}$ 0.5
17) 1 -1	18) 0 $\frac{1}{5}$	19) $\frac{1}{5}$ 0	20) 0.75 $\frac{2}{6}$

Part 2

Compare the values by filling in the box with <, >, =

1) 0.150 $\frac{1}{4}$	2) 0.372 -1	3) $\frac{3}{6}$
4) $\frac{2}{3}$ -2	5) 0.285 0	6) 0.5 $\frac{1}{4}$
7) -7 $\frac{2}{4}$	8) 0.750 $\frac{2}{3}$	9) 0.250 $\frac{5}{8}$
10) $\frac{4}{5}$ -4	11) $\frac{1}{3}$ -2	12) -4 $\frac{2}{4}$
13) 0.850 $\frac{2}{3}$	14) -3 $\frac{2}{4}$	15) 0.600 $\frac{1}{5}$

Ordering Integers, Decimals, and Fractions

Instruction

Put the integers, decimals, and fractions in order from least to greatest.

1) $\frac{2}{3}$, -5, 0.01, 2, $\frac{1}{2}$

2) $\frac{4}{5}$, -4, 2, $\frac{3}{4}$

3) $\frac{1}{2}$, -5, 1

4) $\frac{5}{6}$, 2, 0.451, -1, $\frac{2}{4}$

5) $\frac{3}{5}$, -1, 0, 0.10, $\frac{1}{5}$

6) $\frac{4}{7}$, -4, 1.254, 6, $\frac{2}{4}$

7) $\frac{4}{5}$, 4, 0.5, -5, $\frac{2}{7}$

8) $\frac{5}{8}$, -2, 0.251, 0, $\frac{4}{5}$

9) $\frac{4}{5}$, -3, 0.500, 2, $\frac{3}{6}$

10) $\frac{4}{10}$, -1, 0.250, 4, $\frac{1}{4}$

11) $\frac{3}{4}$, -4, 0.500, 1, $\frac{5}{8}$

12) 4, 0.750, -2, $\frac{2}{4}$

13) -5, 0, 0.10, $\frac{1}{5}$

14) $\frac{6}{8}$, -2, 0, 6, $\frac{1}{3}$

15) $\frac{7}{8}$, 5, 0.250, -4, $\frac{2}{3}$

16) $\frac{3}{4}$, -4, 0.5, 0, $\frac{1}{4}$

Fractions, Decimals, and Integers – Word Problems

Instruction Put the integers, decimals, and fractions in order from least to greatest

- 1) 4 friends worked a week at a farm collecting strawberries. They made \$1000 total. Some of the friends worked harder than others. A breakdown of how much each friend earned is below.

	Colton	Hudson	Joel
\$	-\$10	\$410.504	\$239/1000

- a) What is a score where Colton could be -\$10?



- b) Who made the most money? Put the friends in order from least to greatest.

- 2) The girl's basketball team keeps stats of the game. The shooting stats are listed below.

Alex	Hanna	Rebecca	May	Brianna
0.429	40/90	41.1%	47/100	

- a) Who was the best shooter?

- b) Who was the worst shooter?

- c) Rank the girls in order from best shooter to worst shooter



Integers, Decimals, Fractions, and percent Quiz**Part 1**Use the $<$, $>$, $=$ to compare the integers below

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

4) -5 -4 5) 1 -6 6) -3 -7

7) -3 8) -3 -7 9) 8 6

Part 2

Arrange the integers from greatest to least

1) 7, 3, -6, -8, 0, -4, 8, 1, -9

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

Part 3

What is the name of the place value for the underlined digit?

1) 7 728.122 2) 1 563.422 3) 4 352.427 4) 7 13.688

5) 6 412.433 6) 2 454.723 7) 8 214.326 8) 4 357.926

Part 4

Arrange the integers from least to greatest

267, 423, 128, 231, 254

765, 353, 278, 358, 735

Part 5

Put the integers, decimals, and fractions in order from least to greatest

1) $\frac{2}{3}$, -5, 0.01, 2, $\frac{1}{2}$

3) $\frac{4}{5}$, -3, 0.500, 2, $\frac{3}{6}$

2) $\frac{4}{8}$, -2, 0.4, 2, $\frac{3}{4}$

4) $\frac{4}{10}$, -1, 0.3, 4, $\frac{1}{4}$

Part 6

Convert the following fractions, decimals and percents

358/1000 = _____

36/100 = _____

45.2% = _____/1000

718/1000 = _____%

36.2% = _____/1000

261/1000 = _____

631/1000 = _____%

0.528 = _____%

Part 7

Answer the questions below

4 friends competed in a 3-point shooting contest in basketball. They all took 50 shots. Their results are below.

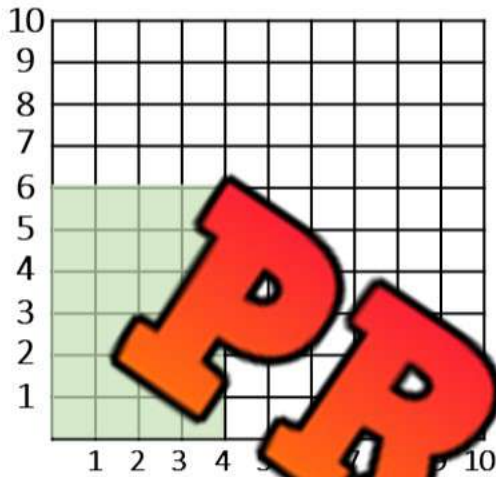
Matt	Chris	Adam	Dave
18/50	0.451	0.399	21/50

- a) Who was the best shooter?
- b) Rank the friends in order of best shooter to worst shooter.

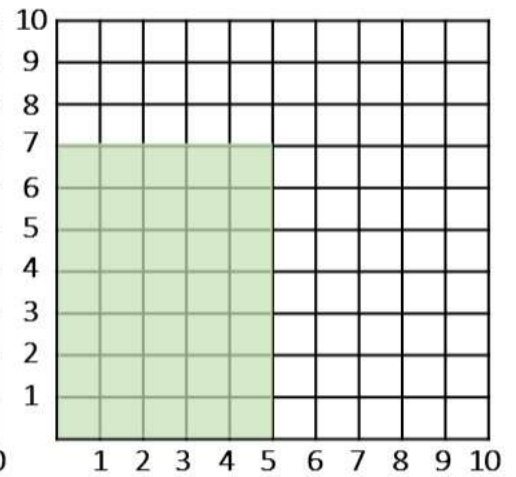
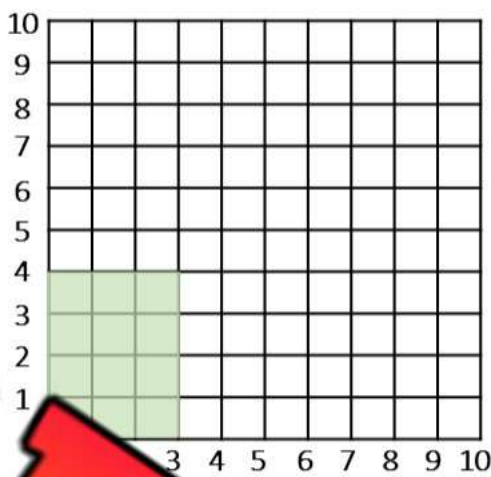
Multiplication - Arrays

Instructions

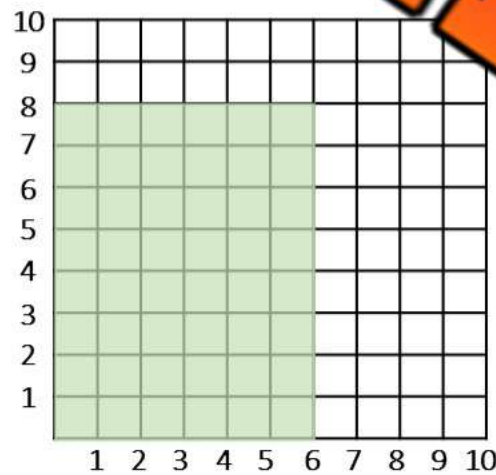
How much is shaded in? Answer the questions below



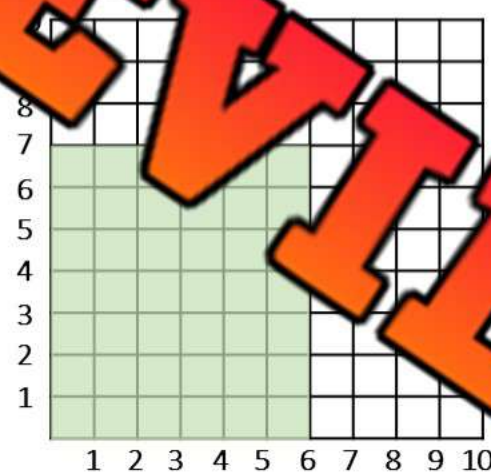
$6 \times 4 = \underline{\hspace{2cm}}$



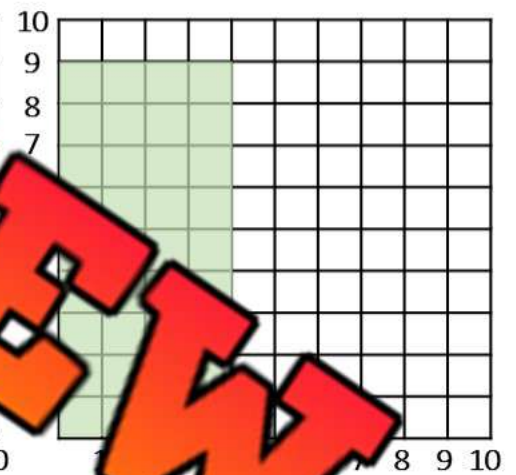
$7 \times 5 = \underline{\hspace{2cm}}$



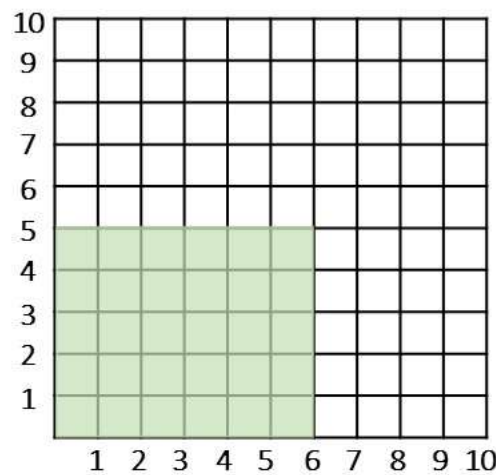
$8 \times 6 = \underline{\hspace{2cm}}$



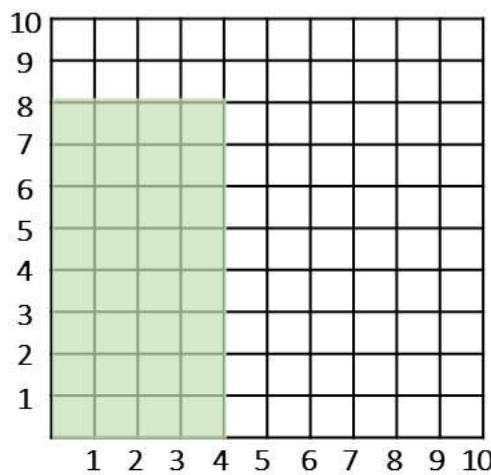
$7 \times 6 = \underline{\hspace{2cm}}$



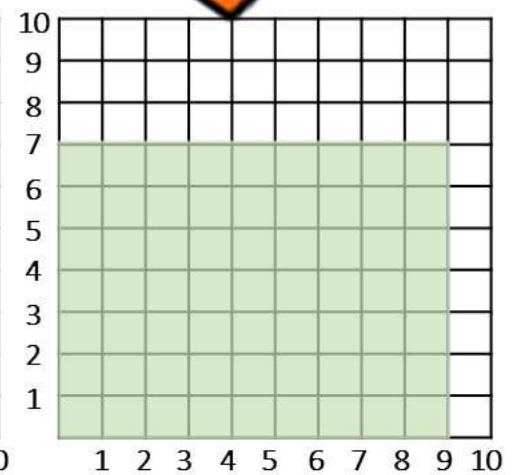
$9 \times 4 = \underline{\hspace{2cm}}$



$5 \times 6 = \underline{\hspace{2cm}}$



$8 \times 4 = \underline{\hspace{2cm}}$



$7 \times 9 = \underline{\hspace{2cm}}$

Name: _____

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Multiplication - 2 x 1 Digits

Questions

Use the standard algorithm to solve the multiplication problems below

1)		
	1	3
x		

2)		
	7	4
x		3

3)		
	2	5
x		8

4)		
	3	7
x		2

5)		
	9	4
x		7

6)		
	5	8
x		2

8)		
	8	3
x		6

9)		
	2	8
x		4

10)		
	6	3
x		6

11)		
	7	7
x		5

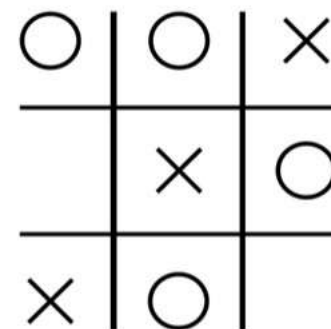
12)		
	9	3
x		2

Math Tic-Tac-Toe: 2 x 1 Digit Multiplication

Objective

What are we learning about?

To help students practice solving 2 x 1-digit multiplication problems in a fun and interactive way through a Tic-Tac-Toe game.



Material

What you will need for the activity.

- Whiteboard or paper
- Markers or pens
- Math Tic-Tac-Toe grid template (to be drawn on the whiteboard or printed on paper)

Instructions

How you will complete it

1. Find a partner to play the game with.
2. The goal is to solve 2 x 1 digit multiplication problems. In each square, you are to place your marker (X or O).
3. One player will be "X" and the other will be "O".
4. Take turns choosing a square and solving the problem in that square.
5. Write down the solution below the equation and place your marker (X or O) in the square.
6. If a player chooses a square and solves the equation incorrectly, they do not get to place their marker in that square. The other player gets a chance to solve it correctly and place their marker.
7. The first player to get three markers in a row (horizontally, vertically, and diagonally) wins the game. Continue playing with different tic-tac-toe grids on the sheet.

Tic-Tac-Toe

Use the following tic-tac-toe grids for the game.

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

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

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

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

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

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

Multiplication – 2 x 2 Digits

Part 1

Use the standard algorithm to solve the multiplication problems below

1) $\begin{array}{r} 42 \\ \times 42 \\ \hline \end{array}$	2) $\begin{array}{r} 65 \\ \times 71 \\ \hline \end{array}$	3) $\begin{array}{r} 75 \\ \times 11 \\ \hline \end{array}$	4) $\begin{array}{r} 23 \\ \times 35 \\ \hline \end{array}$	5) $\begin{array}{r} 58 \\ \times 41 \\ \hline \end{array}$
6) $\begin{array}{r} 37 \\ \times 34 \\ \hline \end{array}$	7) $\begin{array}{r} 76 \\ \times 65 \\ \hline \end{array}$	8) $\begin{array}{r} 36 \\ \times 65 \\ \hline \end{array}$	9) $\begin{array}{r} 58 \\ \times 27 \\ \hline \end{array}$	10) $\begin{array}{r} 28 \\ \times 21 \\ \hline \end{array}$
11) $\begin{array}{r} 46 \\ \times 27 \\ \hline \end{array}$	12) $\begin{array}{r} 72 \\ \times 21 \\ \hline \end{array}$	13) $\begin{array}{r} 49 \\ \times 37 \\ \hline \end{array}$	14) $\begin{array}{r} 59 \\ \times 31 \\ \hline \end{array}$	15) $\begin{array}{r} 68 \\ \times 63 \\ \hline \end{array}$

Part 2

Solve the word problems below

- 1) Avery has 23 bags of candy with 18 candies in each bag. How many candies does she have?



- 2) Brianna blinks 18 times a minute. How many times does she blink in one hour?



Name: _____

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Multiplication – 2 x 2 Digits

Step 1: Setup up the Area Model

$32 \times 17 = \underline{\hspace{2cm}}$

	30	2
10		
7		

Step 2: Multiply

$32 \times 17 = \underline{\hspace{2cm}}$

	30	2
10	30×10 300	10×2 20
7	30×7 210	7×2 14

Step 3: Add

$32 \times 17 = 544$

	30	2
10	300	20
7	210	14

$300 + 210 + 20 + 14 = 544$

Question 1 Use the area model to solve the multiplication problems below

1) $37 \times \underline{\hspace{2cm}}$

2) $24 \times 32 = \underline{\hspace{2cm}}$

3) $52 \times 31 = \underline{\hspace{2cm}}$

4) $72 \times 4 \underline{\hspace{2cm}}$

5) $92 \times 55 = \underline{\hspace{2cm}}$

6) $96 \times 78 = \underline{\hspace{2cm}}$

Front-End Estimation

Front-end estimation is when we keep the first number the same and change the other numbers to 0. This form of estimation always underestimates the number.

Examples 1) $37 \rightarrow 30$ 2) $164 \rightarrow 100$ 3) $2.35 \rightarrow 2.00$ 4) $26.5624 \rightarrow 26.0000$

Part 1 Use front-end estimation to round the 3-digit numbers below

1) 324		6) 212	
2)		7) 363	
3) 438		8) 745	
4) 614		9) 913	
5) 962		10) 867	

Part 2 Use front-end estimation to round the 4-digit numbers below

1) 4375		6) 1067	
2) 7265		7) 385	
3) 8485		8) 4087	
4) 6214		9) 9582	
5) 1971		10) 8485	

Part 3 Use front-end estimation to round to the nearest whole number

1) 4.27		6) 17.9312	
2) 7.1		7) 13.57284	
3) 8.285		8) 24.13214	
4) 6.078		9) 39.64825	
5) 1.512		10) 48.73126	

Front-End Estimation – Multiplication Using Decimals**Instructions**

Use front-end estimation to round to the nearest whole number

1) Question

$5.31 \times 5 = ?$

Front-End Estimation Version

$5 \times 5 = 25$

2) Question

$6.82 \times 8 = ?$

Front-End Estimation Version

$\underline{\quad} \times \underline{\quad} = \underline{\quad}$

3) Question

$8.14 \times 3 = ?$

Front-End Estimation Version

$\underline{\quad} \times \underline{\quad} = \underline{\quad}$

4) Question

$9.14 \times 7 = ?$

Front-End Estimation Version

$\underline{\quad} \times \underline{\quad} = \underline{\quad}$

5) Question

$1.75 \times 4 = ?$

Front-End Estimation Version

$\underline{\quad} \times \underline{\quad} = \underline{\quad}$

6) Question

$18.15 \times 3 = ?$

Front-End Estimation Version

$\underline{\quad} \times \underline{\quad} = \underline{\quad}$

7) Question

$20.21 \times 8 = ?$

Front-End Estimation Version

$\underline{\quad} \times \underline{\quad} = \underline{\quad}$

8) Question

$25.54 \times 6 = ?$

Front-End Estimation Version

$\underline{\quad} \times \underline{\quad} = \underline{\quad}$

Multiplying Decimals – Placing The Decimal

Instructions

Use front-end estimation to determine where to put the decimal

1) 7.334×7 a) 513.38 b) 51.338 c) 5.1338 d) 513.38	2) 3.152×5 a) 157.6 b) 1.576 c) 15.76 d) 0.1576
3) 6.742×8 a) 53.936 b) 5.3936 c) 539.36 d) 5393.6	4) 5.31×3 a) 159.3 b) 1593.0 c) 15.93 d) 159.3
5) 9.422×7 a) 65.954 b) 6.5954 c) 659.54 d) 6595.4	6) 6.37×8 a) 50.96 b) 5.096 c) 50.592 d) 5059.2
7) 9.325×4 a) 37.3 b) 3.73 c) 0.373 d) 373.0	8) 4.627×4 a) 185.08 b) 18.508 c) 1850.8 d) 1.8508
9) 11.624×2 a) 232.48 b) 23.248 c) 2.3248 d) 2324.8	10) 10.334×3 a) 310.02 b) 3.1002 c) 3100.2 d) 31.002

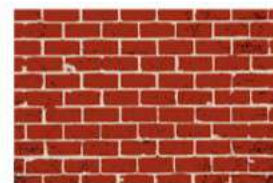
Front-End Estimation – Multiplication Using Decimals**Questions**

Use front-end estimation to estimate the answers

1) Jen earns \$22.53 each time she washes a car. She washed 6 cars today. Approximately how much money did she earn?



2) Ben has 9 bricks in his driveway. Each brick is 12.23cm long. Approximately how long are all the bricks if he puts them together?



3) Steve ran a route around his neighborhood for 7 days straight. His route is 11.25km. Approximately how many km did Steve run in the 7 days?



4) Julia worked 7 hours yesterday and made \$18.55 per hour. Approximately how much money did she earn yesterday?



5) Henry bought 4 bags of soil. Each bag weighs 18.75kg. Approximately how much did all the bags weigh in total?



Multiplication – 1-Digit Multiplier**Questions**

Use the standard algorithm to solve the multiplication problems below

1)

$$\begin{array}{r} 4. \ 1 \ 3 \\ \times \quad \quad \\ \hline \end{array}$$

2)

$$\begin{array}{r} 7. \ 5 \ 7 \\ \times \quad 5 \\ \hline \end{array}$$

3)

$$\begin{array}{r} 2. \ 1 \ 7 \\ \times \quad 3 \\ \hline \end{array}$$

4)

$$\begin{array}{r} 3. \ 4 \ 1 \\ \times \quad 6 \\ \hline \end{array}$$

5)

$$\begin{array}{r} 5. \ 8 \ 3 \\ \times \quad 4 \\ \hline \end{array}$$

6)

$$\begin{array}{r} 4. \ 7 \ 8 \\ \times \quad 5 \\ \hline \end{array}$$

7)

$$\begin{array}{r} 3. \ 6 \ 6 \\ \times \quad 2 \\ \hline \end{array}$$

9)

$$\begin{array}{r} 3. \ 7 \ 8 \\ \times \quad 1 \\ \hline \end{array}$$

10)

$$\begin{array}{r} 7. \ 4 \ 3 \\ \times \quad 7 \\ \hline \end{array}$$

11)

$$\begin{array}{r} 9 \ 7. \ 8 \\ \times \quad 2 \\ \hline \end{array}$$

12)

$$\begin{array}{r} 8 \ 5. \ 6 \\ \times \quad 1 \\ \hline \end{array}$$

13)

$$\begin{array}{r} 7 \ 3. \ 9 \\ \times \quad 9 \\ \hline \end{array}$$

14)

$$\begin{array}{r} 6 \ . \ 0 \ 5 \\ \times \quad 3 \ 4 \\ \hline \end{array}$$

16)

$$\begin{array}{r} 5. \ 2 \ 3 \\ \times \quad 2 \\ \hline \end{array}$$

17)

$$\begin{array}{r} 6 \ 3. \ 6 \\ \times \quad 1 \\ \hline \end{array}$$

18)

$$\begin{array}{r} 9 \ 1. \ 4 \\ \times \quad 9 \\ \hline \end{array}$$

19)

$$\begin{array}{r} 7. \ 2 \ 4 \\ \times \quad 3 \\ \hline \end{array}$$

20)

$$\begin{array}{r} 8 \ 0. \ 5 \\ \times \quad 4 \\ \hline \end{array}$$

Multiplication – 1-Digit Multiplier - Wages

Questions

Solve the word problems below

Four friends work at a farm in the summer. They each earn different wages because they have difference job experience. The wages they earn and the hours they worked yesterday are listed below.



Friends	Ava	Mia	Charlotte	Emma
Earnings	13.35	15.75	13.40	17.65
Hours	9	7	8	6
Earnings				

- a) Who made the most money? How much did each friend earn? Fill in the table above

- b) How much did all 4 friends earn combined?

Divisibility Rules

We can determine whether one whole number is divisible by another without doing division. We can use the following divisibility rules:

- A number is divisible by **2** if the last digit is even (0, 2, 4, 6, or 8)
- A number is divisible by **3** if the sum of the digits is divisible by 3
- A number is divisible by **4** if the last two digits form a number divisible by 4
- A number is divisible by **5** if the last digit is 0 or 5
- A number is divisible by **6** if the number is divisible by both 2 and 3
- A number is divisible by **8** if the number formed by its last three digits is divisible by 8.
- A number is divisible by **9** if the sum of the digits is divisible by 9
- A number is divisible by **10** if the last digit is a 0

Instruction

For each number on the left, place a checkmark under the numbers it is divisible by.

Number	2	3	4	6	8	9	10
1) 65							
2) 20							
3) 105							
4) 81							
5) 120							
6) 548							
7) 423							
8) 657							

Divisibility Rules – 2 and 3

We can determine whether one whole number is divisible by another without doing division. We can use the following divisibility rules:

- A number is divisible by **2** if the last digit is even (0, 2, 4, 6, or 8)
- A number is divisible by **3** if the sum of the digits is divisible by 3

Part 1 Is the number divisible by 2?

- 1) _____ 2) 953 _____
3) 2 682 _____ 4) 8 694 _____

Part 2 Is the number divisible by 3?

- 1) 268 _____
3) 1 458 _____ 4) 428 _____

Part 3 Which numbers are divisible by 2? Circle them.

41 58 162 247 358 355 583
685 714 805 901 1 025 1 714 2 058

Part 4 Which numbers are divisible by 3? Circle them.

73 58 84 105 215 324 515
645 683 729 806 1358 2355 5484

Exit Cards

Cut Out

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

Name: _____

Is the number divisible by 2 or 3?

	Number	Divisible by 2?	Divisible by 3?
1)	5 002		
2)	3 789		
3)	8 136		
4)	10 046		
5)	7 815		
6)	18 029		

Name: _____

Is the number divisible by 2 or 3?

	Number	Divisible by 2?	Divisible by 3?
1)	5 002		
2)	3 789		
3)	8 136		
4)	10 046		
5)	7 815		
6)	18 029		

Name: _____

Is the number divisible by 2 or 3?

	Number	Divisible by 2?	Divisible by 3?
1)	5 002		
2)	3 789		
3)	8 136		
4)	10 046		
5)	7 815		
6)	18 029		

Name: _____

Is the number divisible by 2 or 3?

	Number	Divisible by 2?	Divisible by 3?
1)	5 002		
2)	3 789		
3)	8 136		
4)	10 046		
5)	7 815		
6)	18 029		

Divisibility Rules – 6, 9, and 10

We can determine whether one whole number is divisible by another without doing division. We can use the following divisibility rules:

- A number is divisible by **6** if the number is divisible by both 2 and 3
- A number is divisible by **9** if the sum of the digits is divisible by 9
- A number is divisible by **10** if the last digit is a 0

Part 1

Is the number divisible by 6?

- 1) _____ 2) 741 _____
3) 2472 _____ 4) 4284 _____

Part 2

Is the number divisible by 9?

- 1) 208 _____ 2) 58 _____
3) 2331 _____ 4) 55 _____

Part 3

Is the number divisible by 10?

- 1) 230 _____ 2) 1685 _____
3) 3890 _____ 4) 6101 _____

Part 4

For each number on the left, place a check mark under the numbers it is divisible by:

Number	6	9	10
1) 204			
2) 450			
3) 624			
4) 1250			

Number	6	9	10
5) 2460			
6) 4734			
7) 7530			
8) 9410			

Name: _____

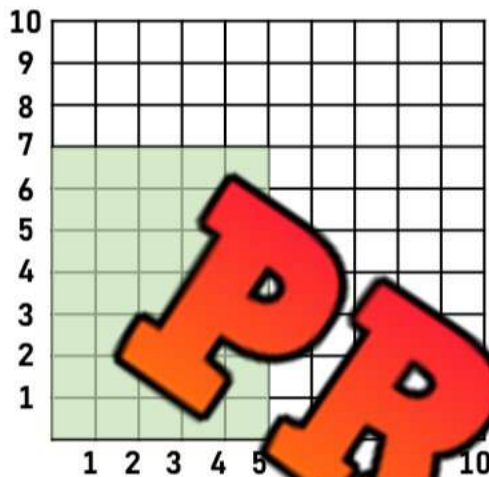
153

Curriculum Connection
N.8

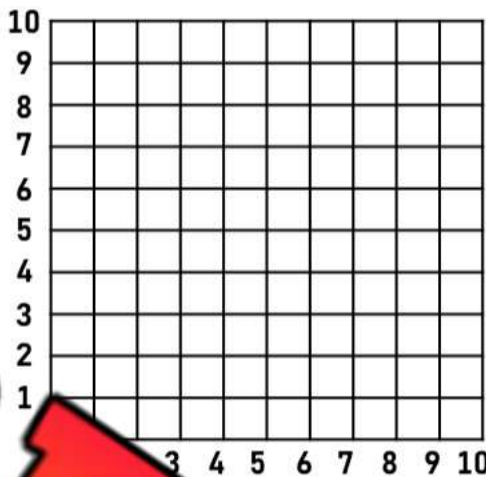
Division - Arrays

Instructions

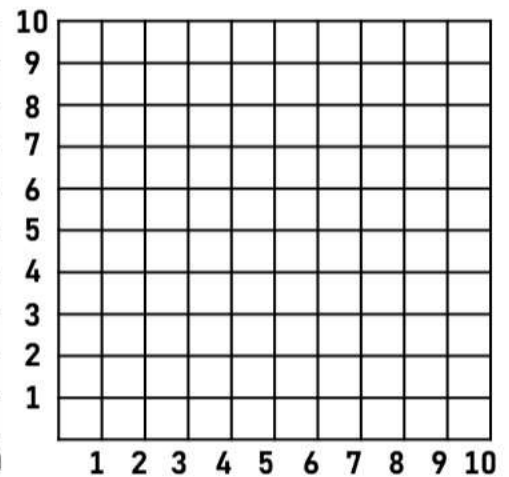
Shade in the arrays using the table. Answer the questions below



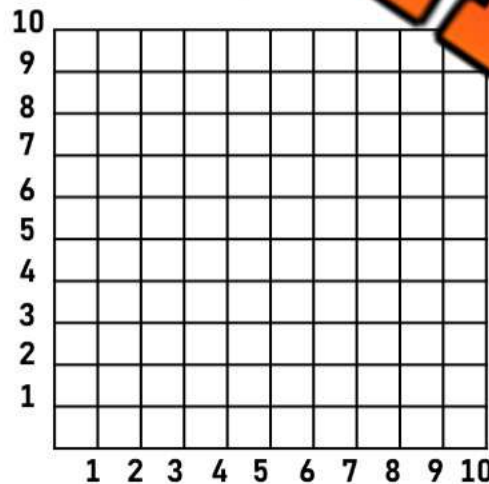
$$35 \div 7 = \underline{\hspace{2cm}}$$



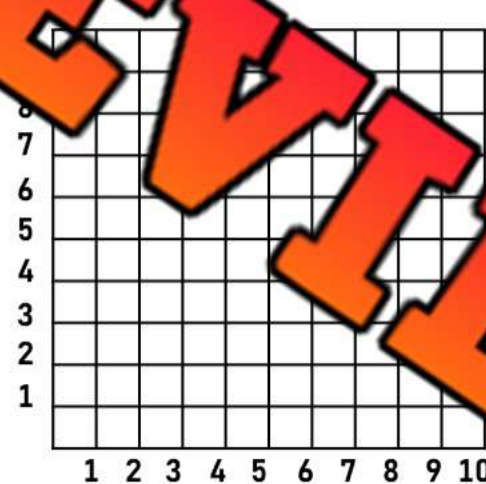
$$7 = \underline{\hspace{2cm}}$$



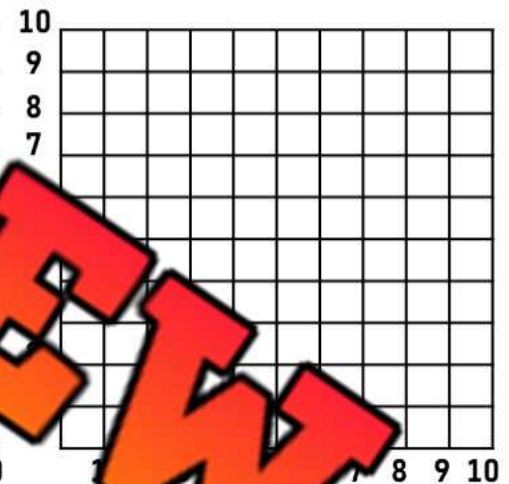
$$18 \div 6 = \underline{\hspace{2cm}}$$



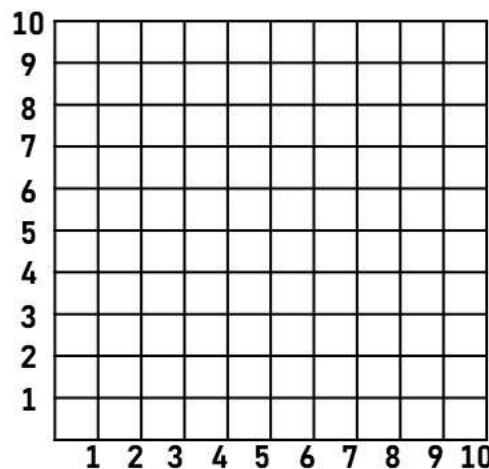
$$45 \div 5 = \underline{\hspace{2cm}}$$



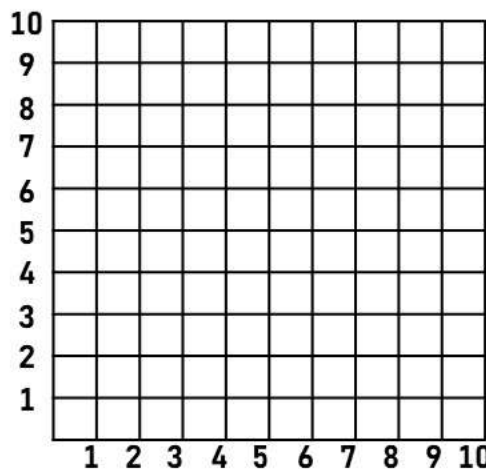
$$80 \div 10 = \underline{\hspace{2cm}}$$



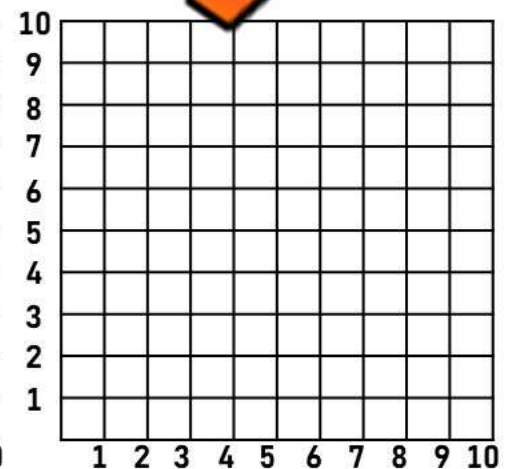
$$24 = \underline{\hspace{2cm}}$$



$$15 \div 3 = \underline{\hspace{2cm}}$$



$$32 \div 4 = \underline{\hspace{2cm}}$$



$$50 \div 5 = \underline{\hspace{2cm}}$$

Division – Bar Model**Questions**

Use the bar model to answer the division questions below

1) $48 \div 8$

48							

2) $36 \div 4$

36			

3)

4) $80 \div 10$

80									

5) $24 \div 4$

24			

6) $30 \div 5$

7) $42 \div 7$

42						

8) $72 \div 8$

72							

9) $49 \div 7$

49						

10) $48 \div 4$

48			

Division – Area Model

Questions

Use the area model to answer the division questions below

1) $243 \div 6 = 40\text{r}3 \text{ (16+4)}$

33 7 0

6	200 198	40 42	3 r3
---	------------	----------	---------

2) $284 \div 4$

4	200	80	4
---	-----	----	---

3) $513 \div 2$

2	500	10	3
---	-----	----	---

$428 \div 6$

6	400	20	8
---	-----	----	---

5) $636 \div 6$

6	600	30	6
---	-----	----	---

6) $778 \div 5$

5	700	70	8
---	-----	----	---

Dividing Decimals – Removing Decimal

When dividing a decimal, we can remove the decimal and treat it as a whole number. We can do this as long as we add the decimal at the end.

Steps:

- 1) Remove the decimal
- 2) Calculate how many times the smaller number (divisor) fits into the dividend
- 3) Use front-end estimation to determine an estimated answer and add the decimal back for final answer

Instructions: Follow the steps above to calculate the answer

1) Question	$3.30 \div 2 = ?$
Step 1 and 2	$330 \div 2 = 165$
Step 3	$3.00 \div 2 = 1.5$ so therefore, put the decimal between the 1 and 6
Answer	<u>1.65</u>

2) Question	$2.4 \div 2 = ?$
Step 1 and 2	
Step 3	
Answer	

3) Question	$4.24 \div 4 = ?$
Step 1 and 2	
Step 3	
Answer	

4) Question	$3.39 \div 3 = ?$
Step 1 and 2	
Step 3	
Answer	

Multiplying Decimals – Placing The Decimal

Questions

Which estimate is the best? Use front-end estimation to make your choice

1) $35.34 \div 7$ a) 5.048 b) 504.8 c) 5048.0 d) 50	2) $30.152 \div 5$ a) 603.04 b) 60.304 c) 6030.4 d) 6.0304
3) $48.51 \div 8$ a) 60.64 b) 6.064 c) 606.4 d) 6064.0	4) $21.531 \div 3$ a) 0.7177 b) 717.7 c) 71.77 d) 7.177
5) $42.422 \div 7$ a) 6060.0 b) 606.0 c) 6.060 d) 60.60	6) $72.5 \div 8$ a) 9.0625 b) 9.0625 c) 90.90625 d) 9.0905
7) $32.825 \div 4$ a) 8206.0 b) 8.206 c) 820.6 d) 82.06	8) $36.627 \div 6$ a) 6104.5 b) 610.45 c) 6.1045 d) 61.045
9) $14.124 \div 2$ a) 7.062 b) 70.62 c) 706.2 d) 7062.0	10) $24.844 \div 3$ a) 8281.3 b) 8.2813 c) 828.13 d) 82.813

Front-End Estimation – Dividing Using Decimals

Questions

Use front-end estimation to estimate the answer

1) Rebecca paid Jrue \$96.42 after he worked 8 hours. Approximately how many dollars did Rebecca pay Jrue per hour?



2) Corbin spent \$3.12 on 6 bags of chips. Approximately how much did each bag of chips cost?



3) Chris earned \$88.34 after working 4 hours. How much did he earn per hour?



4) Mark spent \$77.82 on 7 hockey cards. On average, approximately how many dollars did each card cost?



5) The Johnson family spent \$330.56 on a hotel room for 3 nights. Approximately how much did the hotel cost per night?



Mixed Operations - BEDMAS

When solving an equation, you need to follow the order of operations. This means you have to solve the equation in the correct order, not just from left to right. Using BEDMAS helps us remember the order to solve.

1. Brackets
2. Exponents
3. Division or Multiplication (whichever is first)
4. Addition or Subtraction (whichever is first)

Example 2

$$9 - 3 \div (3 \times 1) = ?$$

$$9 - 3 \div 3 =$$

$$9 - 1 = 8$$

Instructions

Calculate the answers to the equations using BEDMAS

1) $3 + (4 \times 5) =$

2) $21 -$

3) $(8 \times 4) + (4 \div 2) =$

4) $(12 \div 6) \times 3 =$

5) $12 + (2 + 10) =$

6) $8 \div (4 + 3) =$

7) $24 \div 6 + (4 + 10) =$

8) $17 - 2 \times 5 =$

9) $25 + (5 \times 5) =$

10) $25 - 15 \div 5 =$

11) $22 - 6 + 5 =$

12) $18 - 5 + (6 \times 8) =$

Mixed Operations - BEDMAS

Instructions

Find out the value of the variables using BEDMAS

1) $1 \times (2 + 8) =$

2) $3 \times (6 - 4) =$

3) $8 \times 4 + (13 + 8) =$

4) $(7 + 3) \times 2 =$

5) $9 - 4 + (4 \times 9) =$

6) $5 \times (4 + 5) =$

7) $36 \div (3 + 3) =$

8) $12 \div 3 - 8 =$

9) $28 + (9 \div 3) =$

10) $2 \times (28 \div 7) =$

11) $42 + (3 \times 4 \times 2) =$

12) $45 \div 9 \times (2 + 1) =$

Word Problems

Answer the word problems below

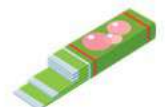
1) Lindsay ordered two slices of pizza and soda for lunch. A slice of pizza is \$2.50, and a soda is \$2.00. Lindsay did the math below. What did she do wrong?

$$\$2.50 + \$2.00 \times 2 = ?$$

$$\$4.50 \times 2 = \$9.00$$



2) John bought 2 pieces of bubble gum for 20 cents each and 3 chocolate bars for 70 cents each. How many cents did he spend? Write the equation.



Order of Operations – Who's Right?

Questions

Sophia and Aiden both answered the questions below. Circle who's right

	Question	Sophia's Answer	Aiden's Answer
1	$2 + 6 \times 4 + 12$	44	38
2	$12 \div 3 \times 3$	4	24
3	$12 \div (2 + 3)$	0	18
4	$5 \times 3 + 8 \div 2$	19	11
5	$12 \div 3 \times (5 + 5)$	25	40
6	$20 + (8 - 3) \times 2$	30	
7	$10 \times 3 - (2 \times 5) - 2$	22	18
8	$25 \div 5 + 6 \times 3$	23	33
9	$48 \div 6 - (2 + 3)$	48	3
10	$3 + 6 \times 7 + 11 - 6 \div 2$	53	34

Order of Operations – Candy Shop

Word Problems

Write the equation for the situations below and answer the question

A candy shop sells gum, gummies, and candies. The prices are displayed in the table below.

Candy	Price in Cents
Gum	25
Gummies	5
Candies	10

**Example**

Miranda bought 2 pieces of gum, 4 gummies, and 5 candies. How many cents did she spend?

Answer: $(2 \times 25) + (4 \times 5) + (5 \times 10) =$
 $50 + 20 + 50 = 120$

- 1) Ava bought 3 pieces of gum, 8 gummies, and 2 candies. How many cents did she spend?
- 2) Neil had 100 cents. He bought 5 gummies and 6 candies. How many cents does he have left?
- 3) Dan purchased 4 pieces of gum, 9 gummies, and 3 candies. How many cents did he spend?
- 4) Claire had 150 cents. She bought 3 pieces of gum, 3 candies, and 6 gummies. How much does she have left?

Multiplication, Division and BEDMAS - Quiz

Part 1

Which estimate is the best? Use front-end estimate to make your choice

1) 6.34×7

- a) 42
- b) 49
- c) 50
- d) 47

2) 7.26×5

- a) 40
- b) 30
- c) 35
- d) 38

3) $9.44 \div 2$

- a) 50
- b) 62
- c) 54
- d) 64

4) $27.21 \div 3$

- a) 7
- b) 8

5) $24.25 \div 3$

- a) 5
- b) 7
- c) 8
- d) 4

6) $30.9 \div 8$

- a) 4
- b) 4
- c) 6
- d) 7

Part 2

Use the standard algorithm to solve the multiplication problems below

1)					
		7	.	2	5
x					2

2)					
		5	.	6	3
x					5

3)					
	1	5	.	4	6
x					6

Part 3

Solve the division problems below

$$\begin{array}{r} 1) \\ 2 \overline{) 4.22} \end{array}$$

$$\begin{array}{r} 2) \\ 3 \overline{) 9.63} \end{array}$$

$$\begin{array}{r} 3) \\ 2 \overline{) 8.48} \end{array}$$

$$\begin{array}{r} 4) \\ 4 \overline{) 8.60} \end{array}$$

Part 4

Use BEDMAS to solve the questions below

$$1) 2 \times (2 + 4) =$$

$$2) 5 + (6 - 4) =$$

$$3) 3 \times 4 + (12 \div 8) =$$

$$4) (7 + 4 - 3) \times 4 =$$

$$5) 9 - 4 \times 9 =$$

$$6) 5 + 4 \div 2 \times 5 =$$

Part 5

Solve the word problems below

1) Carter bought 6 bags of chips for a camping trip. Each bag cost him \$5.39. How much did he spend on chips?



2) Lily spent \$9.60 on 3 drinks for her and her friends. How much did each drink cost?

