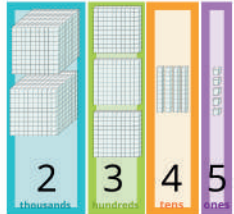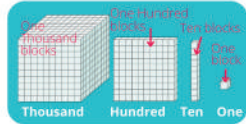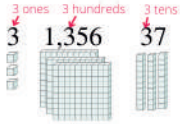# What is Place Value?

The **place** of a digit in a number determines its **value**. For example, the number 3 has a different value in each of the following numbers:
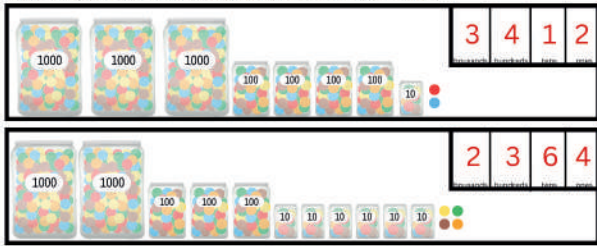
3 ones   3 hundreds   3 tens

3   1,356   37

One thousand blocks   One hundred blocks   Ten blocks   One block

Thousand   Hundred   Ten   One

2   3   4   5
thousands   hundreds   tens   ones

All about the number 2,345:

1. How many ones are in this number? **5**
2. How many hundreds are in this number? **3**
3. How many thousands are in this number? **2**
4. How many tens are in this number? **4**
5. Which number is in the hundreds place? **3**
6. Which number is in the thousands place? **2**
7. Which number is in the ones place? **5**

Two thousand three hundred forty-five
2000 + 300 + 40 + 5

How many chocolate candies? Read each number aloud.

1000	1000	1000	100	100	100	100	10	•		3	4	1	2

1000	1000	100	100	100	10	10	10	10	10	10		2	3	6	4

1

---

3   4   8   7
thousands   hundreds   tens   ones
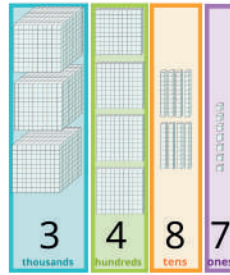
All about the number 3,487:

1. How many ones are in this number? **7**
2. How many hundreds are in this number? **4**
3. How many thousands are in this number? **3**
4. How many tens are in this number? **8**
5. Which number is in the hundreds place? **4**
6. Which number is in the thousands place? **3**
7. Which number is in the ones place? **7**

Three thousand foour hundred eighty-seven
3000 + 400 + 80 + 7

penny 1¢
dime 10¢
nickel 5¢
quarter 25¢

How much money is this? ____ ¢

You have 2 dimes and your sister has 7 nickels.

You **20** ¢

Sister **35** ¢

Who has more money? **sister**

How much more? **15** ¢   35 / −20 / 15

How much money do you have altogether? **55** ¢   35 / +20 / 55

Fill in the blanks of these multiplication circles so that the outer circle is the PRODUCT of the middle circle and the innermost circle.

2
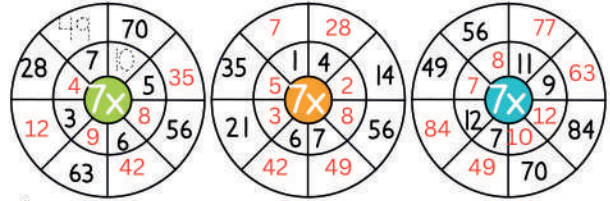
Put these numbers in order from smallest to largest.

47	42	74

42   **47**   **74**
smallest   largest

141	325	114	355

114   **141**   **325**   **355**
smallest   largest

167	182	176	148

148   **167**   **176**   **182**
smallest   largest

102	120	118	201	210

102   **118**   **120**   **201**   **210**
smallest   largest

95	209	232	290	223

95   **209**   **223**   **232**   **290**
smallest   largest

Label the fractions, then name them aloud.

numerator: the number of pieces you HAVE (colored)

denominator: the number of pieces the shape is divided into.

$\frac{2}{4}$ $\frac{4}{5}$ $\frac{5}{6}$ $\frac{3}{6}$ $\frac{2}{6}$
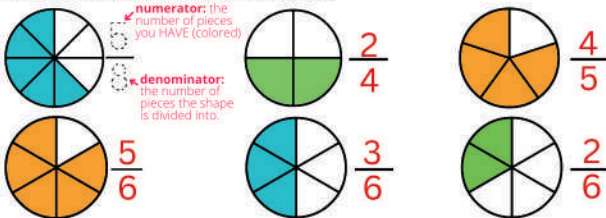
Continue each pattern:

7, 14, 21, 28, 35, **42** , **49** , **56** , **63** , **70** , **77**

5, 10, 15, 20, 25, **30** , **35** , **40** , **45** , **50** , **55** , **60**

3, 13, 23, 33, 43, **53** , **63** , **73** , **83** , **93** , **103** , **113**

3
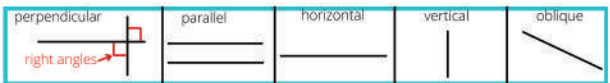
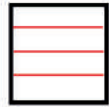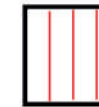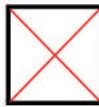| perpendicular	parallel	horizontal	vertical	oblique

right angles

Draw a HORIZONTAL line and a VERTICAL line to divide this square into FOURTHS.
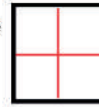
Draw 3 HORIZONTAL lines to divide this square into FOURTHS.

Use two OBLIQUE lines to divide this square into FOURTHS.

Draw 3 VERTICAL lines to divide this square into FOURTHS.

PARALLEL lines never intersect. Lines that intersect at RIGHT ANGLES (90 degrees) are PERPENDICULAR. Draw the following:

Parallel Lines	Perpendicular Lines (draw a square in the RIGHT ANGLE to show that it's perpendicular)	Intersecting Lines that are neither parallel nor perpendicular
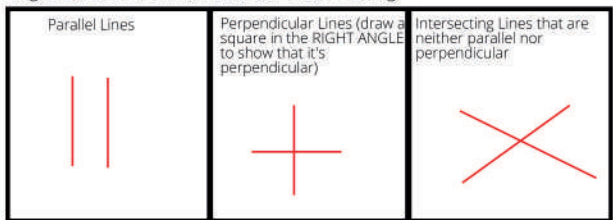
Number each clock face, then draw the hands to show:

Half past eleven   Quarter before twelve   Twelve o'clock

4

Rounding Steps:
1. Circle the digit in the place to which you are rounding.
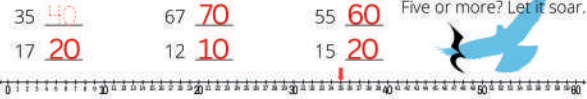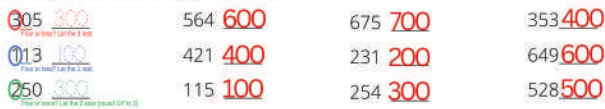2. Look at the digit in the next place to the right. If it's 4 or less let your circled digit rest. If it's 5 or more, let your circled digit soar one number higher.
3. Make all digits to the right of the circled digit zeros.
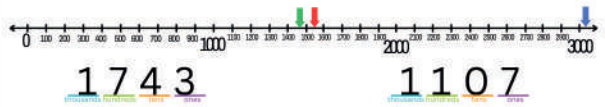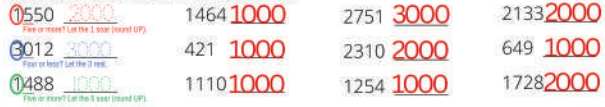
Round to the nearest TEN:

Four or less? Let it rest.
Five or more? Let it soar.

35 40   67 70   55 60

17 20   12 10   15 20

Round to the nearest HUNDRED:

305 300   564 600   675 700   353 400

113 100   421 400   231 200   649 600

250 300   115 100   254 300   528 500

Round to the nearest THOUSAND:

1550 2000   1464 1000   2751 3000   2133 2000

3012 3000   421 1000   2310 2000   649 1000

1488 1000   1110 1000   1254 1000   1728 2000

1 7 4 3   1 1 0 7

Round to the nearest TEN 1740   Round to the nearest TEN 1110
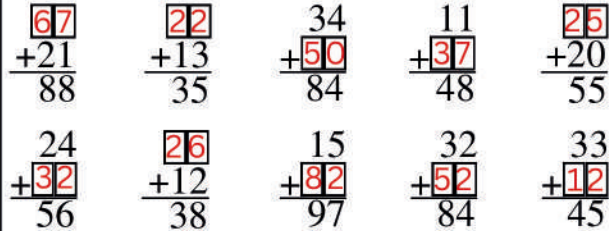Round to the nearest HUNDRED 1700   Round to the nearest HUNDRED 1100
Round to the nearest THOUSAND 2000   Round to the nearest THOUSAND 1000

5

Color pieces of each shape to match the fraction in front of it.

$\frac{1}{2}$ $\frac{2}{4}$ $\frac{3}{6}$ $\frac{4}{8}$ $\frac{5}{10}$ $\frac{6}{12}$
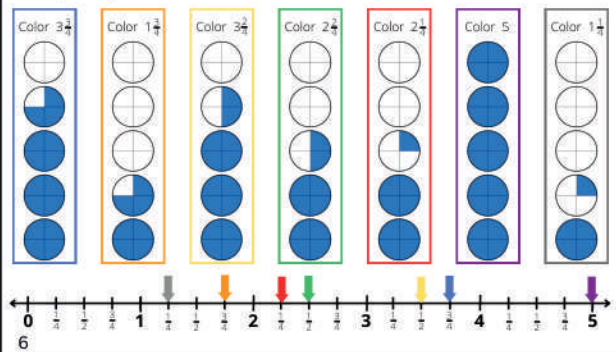
What do each of these fractions have in common? they're all equal to one half

Fill in the boxes with the missing addends.

$\begin{array}{r} 67 \\ +21 \\ \hline 88 \end{array}$ $\begin{array}{r} 22 \\ +13 \\ \hline 35 \end{array}$ $\begin{array}{r} 34 \\ +50 \\ \hline 84 \end{array}$ $\begin{array}{r} 11 \\ +37 \\ \hline 48 \end{array}$ $\begin{array}{r} 25 \\ +20 \\ \hline 55 \end{array}$

$\begin{array}{r} 24 \\ +32 \\ \hline 56 \end{array}$ $\begin{array}{r} 26 \\ +12 \\ \hline 38 \end{array}$ $\begin{array}{r} 15 \\ +82 \\ \hline 97 \end{array}$ $\begin{array}{r} 32 \\ +52 \\ \hline 84 \end{array}$ $\begin{array}{r} 33 \\ +12 \\ \hline 45 \end{array}$

Color the MIXED NUMBER in each colored rectangle. Then draw an arrow that color pointing to that mixed number on the number line below.

Color $3\frac{3}{4}$ Color $1\frac{1}{4}$ Color $3\frac{1}{4}$ Color $2\frac{3}{4}$ Color $2\frac{1}{4}$ Color 5   Color $1\frac{3}{4}$
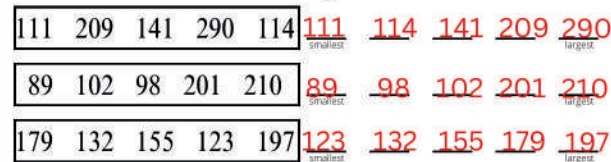
6

I ♡ MATH

Trace all of the HORIZONTAL lines green. Trace all of the VERTICAL lines red. Trace all of the OBLIQUE lines blue.

Divide the heart into two equal halves with a VERTICAL line. Label each half with a fraction and color the LEFT half red.

Insert the correct comparison symbol between the numbers to compare them.

202 < 220   501 = 501   110 > 101

453 > 435   492 > 429   345 < 354

Order these numbers from smallest to largest.

| 111 | 209 | 141 | 290 | 114 |

111 114 141 209 290
smallest   largest

| 89 | 102 | 98 | 201 | 210 |

89 98 102 201 210
smallest   largest

| 179 | 132 | 155 | 123 | 197 |

123 132 155 179 197
smallest   largest

Label each piece of each circle with the correct fraction. Remember, the DENOMINATOR (the bottom of each fraction) is the NUMBER of pieces the shape is divided into and the top of each fraction will be one.
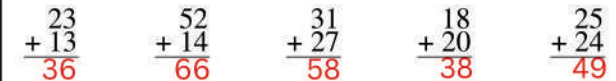
7

Addition	Subtraction
$3 + 7 = 10$	$10 - 3 = 7$
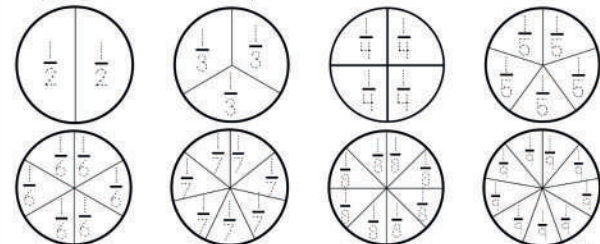
Fill in the missing addends or sum to complete each number sentence.

$3 + 7 = 10$ $1 + 3 = 4$ $1 + 7 = 8$
$4 + 3 = 7$ $9 + 0 = 9$ $4 + 5 = 9$
$2 + 7 = 9$ $2 + 8 = 10$ $3 + 5 = 8$
$4 + 4 = 8$ $4 + 1 = 5$ $2 + 5 = 7$

Find the sums without regrouping.

$\begin{array}{r} 23 \\ +13 \\ \hline 36 \end{array}$ $\begin{array}{r} 52 \\ +14 \\ \hline 66 \end{array}$ $\begin{array}{r} 31 \\ +27 \\ \hline 58 \end{array}$ $\begin{array}{r} 18 \\ +20 \\ \hline 38 \end{array}$ $\begin{array}{r} 25 \\ +24 \\ \hline 49 \end{array}$

Find the differences without regrouping.

$\begin{array}{r} 42 \\ -12 \\ \hline 30 \end{array}$ $\begin{array}{r} 34 \\ -21 \\ \hline 13 \end{array}$ $\begin{array}{r} 35 \\ -11 \\ \hline 24 \end{array}$ $\begin{array}{r} 57 \\ -36 \\ \hline 21 \end{array}$ $\begin{array}{r} 25 \\ -10 \\ \hline 15 \end{array}$

Find the sums with regrouping.

$\begin{array}{r} 194 \\ 207 \\ +183 \\ \hline 584 \end{array}$ $\begin{array}{r} 148 \\ 285 \\ +45 \\ \hline 478 \end{array}$ $\begin{array}{r} 407 \\ 115 \\ +195 \\ \hline 717 \end{array}$ $\begin{array}{r} 127 \\ 133 \\ +585 \\ \hline 845 \end{array}$ $\begin{array}{r} 214 \\ 236 \\ +125 \\ \hline 575 \end{array}$

Find the differences with regrouping.

$\begin{array}{r} 63 \\ -28 \\ \hline 35 \end{array}$ $\begin{array}{r} 51 \\ -25 \\ \hline 26 \end{array}$ $\begin{array}{r} 44 \\ -19 \\ \hline 25 \end{array}$ $\begin{array}{r} 30 \\ -11 \\ \hline 19 \end{array}$

8

Page 9

Match each shape to its name and attributes.

Name	Attribute
Triangle	12 edges all the same length
Square	One vertex, one circular side
Cone	No edges or vertices, 3D
Sphere	8 vertices, only 2 sides are squares
Cuboid	3D with 2 circular ends
Circle	3 sides
Cylinder	4 sides, all the same length
Rectangle	Closed, curved, 2D shape
Pyramid	One vertex, one square side
Oval	No edges or vertices, but not a circle
Cube	4 sides, not the same length

How much money is this?

$ 1 . 61 dollars cents
$ 2 . 52 dollars cents
$ 1 . 77 dollars cents
$ 2 . 56 dollars cents
$ 1 . 95 dollars cents

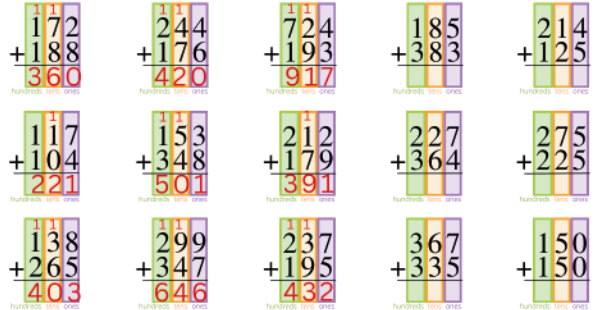Fill in the blanks of these multiplication circles so that the outer circle is the PRODUCT of the middle circle and the innermost circle.
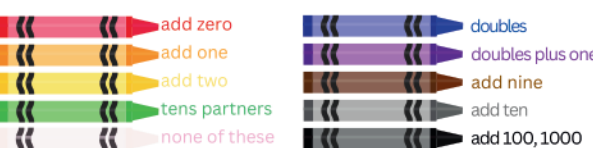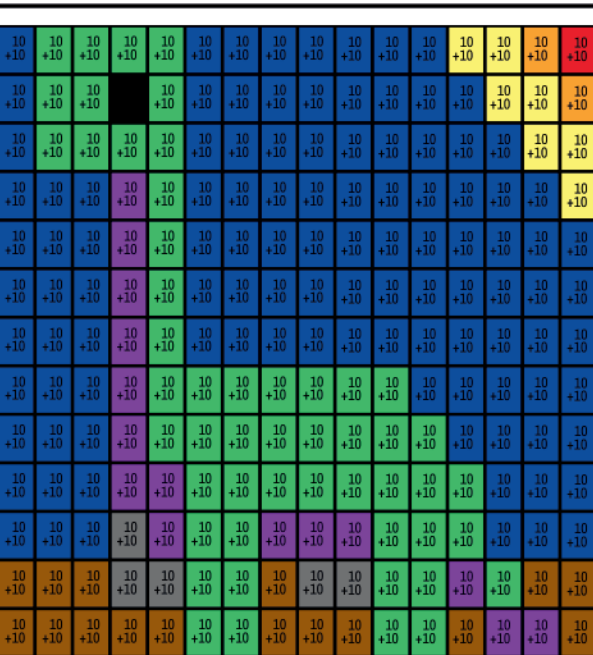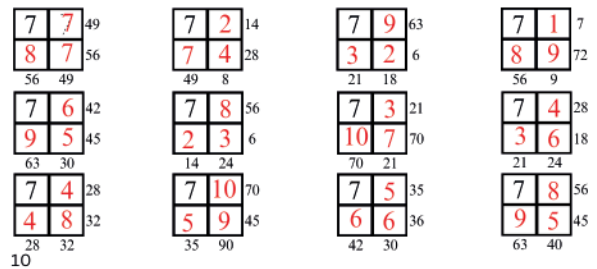

9

Page 10

Date _____

Find the sums with regrouping.

```
 172    244    724    185    214
+188   +176   +193   +383   +125
 360    420    917    568    339
```

```
 117    153    212    227    275
+104   +348   +179   +364   +225
 221    501    391    591    500
```

```
 138    299    237    367    150
+265   +347   +195   +335   +150
 403    646    432    702    300
```

Find the differences with regrouping.

```
 50     61     38     62
-25    -27    -29    -38
 25     34      9     24
```
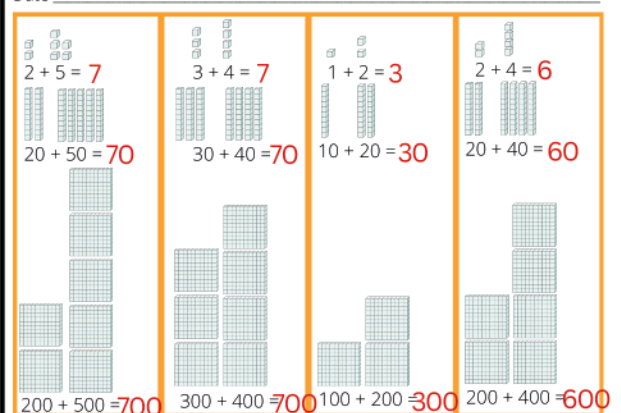
Fill in each square with factors such that the product of each set of factors, horizontally and vertically, are correct.

7	7	49
8	7	56
56	49	

7	2	14
3	4	28
49	8	

7	9	63
3	2	6
21	18	

7	1	7
8	9	72
56	9	

7	6	42
9	5	45
63	30	

7	8	56
2	3	6
14	24	

7	3	21
10	7	70
70	21	

7	4	28
3	6	18
21	24	

7	4	28
4	8	32
28	32	

7	10	70
5	9	45
35	90	

7	5	35
6	6	36
42	30	

7	8	56
9	5	45
63	40	

10

Bottom-left page

Color	Label
red	add zero
orange	add one
yellow	add two
green	tens partners
pink	none of these
dark blue	doubles
purple	doubles plus one
brown	add nine
gray	add ten
black	add 100, 1000

Page 12

Date _____

2 + 5 = 7   3 + 4 = 7   1 + 2 = 3   2 + 4 = 6

20 + 50 = 70   30 + 40 = 70   10 + 20 = 30   20 + 40 = 60

200 + 500 = 700   300 + 400 = 700   100 + 200 = 300   200 + 400 = 600

Find the sums.

3 + 2 = 5   6 + 9 = 15   8 + 5 = 13

30 + 20 = 50   60 + 90 = 150   80 + 50 = 130

300 + 200 = 500 600 + 900 = 1500 800 + 500 = 1300

What time is shown on these clocks? Write the time on the digital clock below.

2:00   2:10   2:23   2:34   2:54

12

Page 13

Draw lines to match the polygons across all three columns.

3 sides
6 sides
10 sides
8 sides
4 sides
9 sides
7 sides
5 sides

Pentagon
Triangle
Heptagon
Hexagon
Octagon
Decagon
Nonagon
Quadrilateral

There are many types of quadrilaterals (shapes with FOUR sides). Draw lines to match each quadrilateral to it's most specific name.

rectangle   square   parallelogram   rhombus   trapezoid

Geometry Riddle:

What's a polygon?   A dead parrot.

13

Page 14

1 2 4 7 -1 = 1246

1 2 4 7 -10 = 1237   Subtracting 10 is the same as subtracting 1 in the tens place.

1 2 4 7 -100 = 1147   Subtracting 100 is the same as subtracting 1 in the hundreds place.

1 0 2 4 7 -1000 = 247   Subtracting 100 is the same as subtracting 1 in the hundreds place.

Find the SUMS and DIFFERENCES by adding or subtracting mentally.

23 + 10 = 33 add 1 in the tens place   777 - 100 = 677   111 - 100 = 11
75 - 1 = 74 subtract 1   1445 + 1000 = 2445   4045 - 1000 = 3045
401 + 100 = 501 add 1 in the hundreds place 134 - 10 = 124   1027 - 10 = 1017
234 + 100 = 334 add 1 in the hundreds place 241 + 1000 = 1241   2410 + 1000 = 3410
55 - 10 = 45 subtract 1 in the tens place   358 - 10 = 348   598 - 10 = 588
29 + 1 = 30 add 1   321 + 10 = 331   300 + 10 = 310
193 - 10 = 183 subtract 1 in the tens place 2755 - 100 = 2655   2550 - 1000 = 1550
275 + 100 = 375 add 1 in the hundreds place 825 + 1000 = 1825   3105 + 1000 = 4105
1303 + 1000 = 2303 add 1 in the thousands place 1545 + 1000 = 2545 1100 + 100 = 1200

Find the sums by adding multiples of ten in the correct column.

1 2 4 7 +40 = 1287   Adding 40 is the same as adding 3 in the tens place.

3 2 4 7 +2000 = 3247   Adding 2000 is the same as adding 2 in the thousands place.

1342 + 200 = 1542 add 2 in the hundreds place
3104 + 30 = 3134 add 3 in the tens place
1505 + 50 = 1555 add 5 in the tens place
1342 + 500 = 1842 add 5 in the hundreds place
1272 + 400 = 1672 add 4 in the hundreds place
2113 + 2000 = 4113 add 2 in the thousands place
1004 + 300 = 1304 add 3 in the hundreds place

14

Page 15

Draw a dot inside each angle. Count the numbers of angles in each shape.

4 angles   0 angles   3 angles   5 angles   4 angles

Write straight, right, acute or obtuse below each angle.

90°   130°   30°   180°

right   obtuse   acute   straight

Draw lines to match each angle to the most correct measure.

90°   80°   30°   110°   180°   150°

Trace the existing numbers, fill in the missing numbers and color the squares with EVEN numbers yellow.

| 98 | 99 | 100 | 101 | 102 | 103 | 104 | 105 | 106 | 107 |
| 108 | 109 | 110 | 111 | 112 | 113 | 114 | 115 | 116 | 117 |

15

Page 16

Word Problem Steps:
1. Read the problem carefully.
2. Circle the question.
3. Underline the important information.
4. Cross out any information that doesn't matter.
5. Draw a picture and write a number sentence. Solve the problem and show your work.
6. Check. Re-read your problem and check your work.

I took my six kids to the library, where they each borrowed five books. I borrowed ten books. How many books did we borrow altogether?

Draw a picture:

Number Sentence 1:

6 x 5 = 30
number of kids   books per kid   kids books

Number Sentence 2:

30 + 10 = 40
kid's books   mom's books   total books

You read three books last week. One book had 383 pages, one book had 516 pages and one book had 209 pages. How many pages did you read last week?

Number Sentence:

383 + 516 + 209 = 1108

Fill in the blanks of these multiplication circles so that the outer circle is the PRODUCT of the middle circle and the innermost circle.
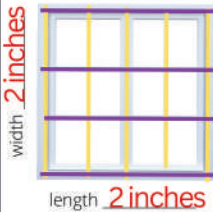
16

Page 17

Color the coins needed to buy the sailboat.

Sailboat: 97¢ Drum: 89¢

Fill in each square with factors such that the product of each set of factors, horizontally and vertically, are correct.

8	6	48
9	5	45
72	30	

8	8	64
2	3	6
16	24	

8	3	24
10	7	70
80	16	

8	2	16
1	5	5
8	10	

8	4	32
4	9	36
32	36	

8	10	80
8	5	40
64	50	

8	5	40
6	6	36
48	30	

8	6	48
4	3	12
32	18	

8	7	56
3	7	21
24	49	

8	2	16
7	4	28
56	8	

8	9	72
3	2	6
24	18	

8	8	64
6	9	54
48	72	

width 2 inches

Use a ruler to measure the length and width of this window in inches. Remember to write the units! Trace all horizontal lines purple.
- Trace all horizontal lines purple.
- Trace all vertical lines yellow.
- Trace all oblique lines green.
- Draw a red line of symmetry. answers will vary
- What would be the measurements of a congruent shape? 2" x 2"

length 2 inches

Page 18

Each box holds a HALF DOZEN donuts. How many donuts do you have?

Write a number sentence as repeated addition, then as multiplication.

6 + 6 + 6 + 6 = 24 ← repeated addition

4 x 6 = 24 ← multiplication
(number of boxes, donuts per box)

Each bag has TEN jelly beans. How many jelly beans do you have?

10 + 10 + 10 + 10 + 10 + 10 + 10 + 10 = 80 ← repeated addition

10 x 8 = 80 ← multiplication
(number of bags, jelly beans per bag)

Each watermelon slice has FIVE seeds. How many seeds are there?

5 + 5 + 5 + 5 + 5 + 5 + 5 + 5 + 5 + 5 = 50 ← repeated addition

5 x 10 = 50 ← multiplication
(number of slices, seeds per slice)

Each bunch has THREE bananas. How many bananas do you have?

3 + 3 + 3 + 3 + 3 + 3 = 18 ← repeated addition

6 x 3 = 18 ← multiplication
(number of bunches, bananas per bunch)

Page 19

Find the products.

		Find the quotients.
8 x 8 = 64	7 x 6 = 42	49÷7 = 7
8 x 6 = 48	7 x 12 = 84	64÷8 = 8
8 x 1 = 8	7 x 1 = 7	84÷7 = 12
8 x 5 = 40	7 x 5 = 35	72÷8 = 9
8 x 7 = 56	7 x 11 = 77	42÷7 = 6
8 x 2 = 16	7 x 4 = 28	56÷7 = 8
8 x 11 = 88	7 x 7 = 49	88÷8 = 11
8 x 10 = 80	7 x 1 = 7	48÷8 = 6
8 x 4 = 32	7 x 3 = 21	63÷7 = 9
8 x 12 = 96	7 x 8 = 56	28÷7 = 4
8 x 3 = 24	7 x 9 = 63	56÷8 = 7
8 x 9 = 72	7 x 10 = 70	96÷8 = 12

Trace the existing numbers, fill in the missing numbers and color the squares with EVEN numbers yellow.

495	496	497	498	499	500	501	502	503	504
505	506	507	508	509	510	511	512	513	514

Complete these Fact Family houses.

72: 8, 9
8 x 9 = 72
9 x 8 = 72
72 ÷ 9 = 8
72 ÷ 8 = 9

48: 6, 8
8 x 6 = 48
6 x 8 = 48
48 ÷ 6 = 8
48 ÷ 8 = 6

96: 8, 12
8 x 12 = 96
12 x 8 = 96
96 ÷ 12 = 8
96 ÷ 8 = 12

56: 7, 8
8 x 7 = 56
7 x 8 = 56
56 ÷ 7 = 8
56 ÷ 8 = 7

Page 20

Multiplication: 3 x 7 = 21 (factors, product)

Division: 21 ÷ 7 = 3 (dividend, divisor, quotient)

Fractions are pieces of things.

numerator: the top number in a fraction, it tells you how many pieces you have. You have 3 pieces of pizza.

denominator: the bottom number in a fraction, it tells you HOW MANY pieces you cut your item into. This pizza is cut into 4 pieces.

3/4

Find products.

	Find quotients.
8 x 12 = 96	49÷7 = 7
8 x 6 = 48	64÷8 = 8
8 x 8 = 64	84÷7 = 12
8 x 5 = 40	72÷8 = 9
8 x 7 = 56	42÷7 = 6
8 x 2 = 16	56÷7 = 8
8 x 11 = 88	88÷8 = 11
8 x 9 = 72	48÷8 = 6
8 x 4 = 32	63÷7 = 9
8 x 3 = 24	56÷8 = 7

Trace then write these important terms:

product
quotient
numerator
denominator
whole number
mixed number

Color the number in each colored rectangle. Then draw an arrow that color pointing to the number on the number line below.

- mixed number: Color 2¼
- whole number: Color 2
- mixed number: Color 3½
- fraction: Color ½
- mixed number: Color 1¼
- whole number: Color 1
- mixed number: Color 4½

Number line: 0 1 2 3 4 5

Page 21

I bought a pizza each night for a week. Each pizza was cut into eight pieces. I ate them all. How many pieces of pizza did I eat?

Write a number sentence.
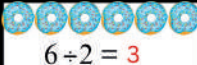_7_ x _8_ = _56_

Your three cats each had FIVE kittens! Oh, my goodness! How many kittens are there?

Draw a picture:

Write a number sentence.
_3_ x _5_ = _15_

Draw lines to divide each set into equal halves. If there is a leftover, circle it in red, then use a vertical line to cut it in half.

$7 \div 2 = 3$
$5 \div 2 = 2\ 1/2$
$6 \div 2 = 3$
$3 \div 2 = 1\ 1/2$
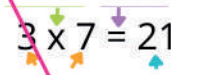$8 \div 2 = 4$
$9 \div 2 = 4\ 1/2$

Do you see a pattern? Look at the boxes above with an EVEN dividend (6 and 8). Now look at the boxes with an ODD dividend (7, 5, 3 and 9). What's the pattern?

Jumbled up Greek prefix	Greek Prefix	Number of sides
treat	tetra	four
anon	nona	nine
heax	hexa	six
theap	hepta	seven
edca	deca	ten
coat	octa	eight
tenap	penta	five

Use these words to label the diagrams below:

factors   divisor
product   multiply
quotient   divide
dividend   equal

Multiplication
$3 \times 7 = 21$

Division
$21 \div 7 = 3$
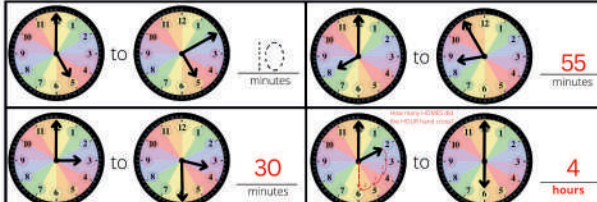
Page 22

Date _____

13 x 1 =		1 3
13 x 10 =		1 3 0
13 x 100 =	1 3 0 0
13 x 1000 =	1 3 0 0 0

15 x 1 =		1 5
15 x 10 =		1 5 0
15 x 100 =	1 5 0 0
15 x 1000 =	1 5 0 0 0

27 x 1 =		2 7
27 x 10 =		2 7 0
27 x 100 =	2 7 0 0
27 x 1000 =	2 7 0 0 0

19 x 1 =		1 9
19 x 10 =		1 9 0
19 x 100 =	1 9 0 0
19 x 1000 =	1 9 0 0 0

Find the differences by regrouping.

$564 - 205 = 359$

$786 - 149 = 637$

$600 - 112 = 488$

$24 - 17 = 07$
$35 - 28 = 07$
$40 - 39 = 01$
$57 - 56 = 01$

$30 - 15 = 15$
$22 - 9 = 13$
$34 - 26 = 08$
$21 - 16 = 05$

$56 - 37 = 19$
$84 - 45 = 39$
$45 - 22 = 23$
$71 - 36 = 35$

Page 23

How much time has elapsed between each set of clocks?

to ___ **10** minutes
to ___ **55** minutes
to ___ **30** minutes
to ___ **4** hours

10 minutes earlier	5 minutes earlier	current time	5 minutes later	10 minutes later
6:50	6:55	7:00	7:05	7:10
9:05	9:10	9:15	9:20	9:25
10:20	10:25	10:30	10:35	10:40

How much time has elapsed?

time	hours	minutes
9:30		30
10:00	1	
11:00		5
11:05		

_1_ hour and _35_ minutes

time	hours	minutes
1:50		10
2:00	1	
3:00		
4:00		30
4:30		

_2_ hours and _40_ minutes

time	hours	minutes
11:00		
12:15		

_1_ hour and _40_ minutes

time	hours	minutes
10:20		
12:10		

_1_ hour and _50_ minutes

Page 24

Date _____

Compare these fractions by drawing the correct comparison symbol (<, >, =) between them. Use your FRACTION BARS or FRACTION CIRCLES to help.

$\frac{1}{2} > \frac{1}{4}$ $\frac{1}{8} < \frac{1}{5}$ $\frac{1}{2} < \frac{3}{4}$

$\frac{1}{3} > \frac{1}{5}$ $\frac{1}{6} > \frac{1}{8}$ $\frac{2}{6} < \frac{2}{3}$
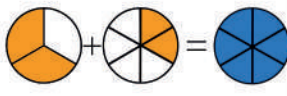
Color pieces of each bottom shape so it matches the top shape. Then write each equivalent fractions number sentence.

$\frac{1}{3} = \frac{2}{6}$ $\frac{1}{2} = \frac{2}{4}$ $\frac{2}{5} = \frac{4}{10}$ $\frac{1}{4} = \frac{3}{12}$

$\frac{2}{3} = \frac{4}{6}$ $\frac{6}{8} = \frac{3}{4}$ $\frac{8}{10} = \frac{4}{5}$ $\frac{2}{2} = \frac{12}{12}$

Draw lines to match:

product
quotient
numerator
denominator
whole number
mixed number

$2\frac{2}{3}$
2
$2 \times 2 = 4$
$\frac{2}{3}$
$4 \div 2 = 2$
$\frac{2}{3}$

Here's the challenge from today's video:

$\frac{2}{3} + \frac{2}{6} = 1$

fraction   fraction   whole number

Page 25

Fill in each square with factors such that the product of each set of factors, horizontally and vertically, are correct.

8	6	48
5	9	45
40	54	

8	9	72
6	8	48
48	72	

8	5	40
7	6	42
56	30	

8	9	72
10	8	80
80	72	

8	8	64
11	7	77
88	56	

8	4	32
6	4	24
48	16	

Color each rectangle according to the product of the numbers inside:

- ■ 0-25
- ■ 26-50
- ■ 51-75
- ■ 76-100
- □ 100+

8 x 4	4 x 7	5 x 6	5 x 8	7 x 5	8 x 9	7 x 9	5 x 10	4 x 11
3 x 12	7 x 5	11 x 3	6 x 6	6 x 9	7 x 8	8 x 8	7 x 7	6 x 8
8 x 6	6 x 7	12 x 3	9 x 9	1 x 7	5 x 12	12 x 6 12 x 8	9 x 3	6 x 5	5 x 7
7 x 6	12 x 3	8 x 10	9 x 9	8 x 12	10 x 10	9 x 9	11 x 4 7 x 4	7 x 5
6 x 5	7 x 12	9 x 10	10 x 10	9 x 9	10 x 10	9 x 9	12 x 7	9 x 4
4 x 12	9 x 11	9 x 11	9 x 9	9 x 10	9 x 9	9 x 11	8 x 12	4 x 8
4 x 7	9 x 9	10 x 8	7 x 8	11 x 9	8 x 10	10 x 9	8 x 11	6 x 6
8 x 4	8 x 12	12 x 8	9 x 11	10 x 8	9 x 10	9 x 11	9 x 9	8 x 4
5 x 8	9 x 11	11 x 9	9 x 10	12 x 7	8 x 11	10 x 9	10 x 12	10 x 11
10 x 4	9 x 9	8 x 12	7 x 12	9 x 9	12 x 12	11 x11	8 x 11	11 x 3
8 x 6	9 x 9 8 x 6	12 x 7	8 x 10	7 x 12	9 x 10	10 x 8	12 x 8 12 x 5	8 x 5
11 x 4	6 x 8	6 x 8 7 x 12	12 x 8	8 x 10	8 x 12	10 x 10 11 x 4	6 x 8	7 x 6

25

Page 26

Divide these stars into 4 groups.

How many stars are in each group?
What is $\frac{1}{4}$ of 24? 8

Divide these balls into 3 groups.
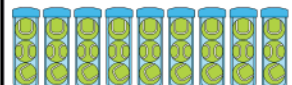
How many balls are in each group?
What is $\frac{1}{3}$ of 27? 9

Divide these apples into 2 groups.

What is $\frac{1}{2}$ of 24? 12

Divide these dots into 6 groups.

What is $\frac{1}{6}$ of 48? 8

Find the products.

$8 \times 4 = 32$
$8 \times 9 = 72$
$8 \times 1 = 8$
$8 \times 6 = 48$
$8 \times 7 = 56$
$8 \times 12 = 96$
$8 \times 5 = 40$
$8 \times 8 = 64$
$8 \times 3 = 24$
$8 \times 10 = 80$
$8 \times 11 = 88$
$8 \times 2 = 16$

$7 \times 6 = 42$
$7 \times 12 = 84$
$7 \times 8 = 56$
$7 \times 5 = 35$
$7 \times 2 = 14$
$7 \times 11 = 77$
$7 \times 4 = 28$
$7 \times 10 = 70$
$7 \times 3 = 21$
$7 \times 1 = 7$
$7 \times 9 = 63$
$7 \times 7 = 49$

Find the quotients.

$48 \div 8 = 6$
$63 \div 7 = 9$
$16 \div 8 = 2$
$64 \div 8 = 8$
$56 \div 8 = 7$
$32 \div 8 = 4$
$56 \div 7 = 8$
$49 \div 7 = 7$
$24 \div 8 = 4$
$96 \div 8 = 12$
$72 \div 8 = 9$
$40 \div 8 = 5$

26

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Place the correct comparison symbol (<, >, =) in the circle between each set of shapes. Then write the fraction on top of each shape.

Color the coins needed to buy the robot. — $2.18

Color the number in each colored rectangle. Then draw an arrow that color pointing to the number on the number line below.

| mixed | whole | mixed | fraction | mixed | mixed | mixed |
| Color $2\frac{1}{8}$ | Color 3 | Color $3\frac{3}{8}$ | Color $\frac{1}{2}$ | Color $2\frac{3}{8}$ | Color $1\frac{1}{4}$ | Color $3\frac{5}{8}$ |

0 1 2 3 4

27

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Add the fractions and color the sections of the empty circle to find the SUM.

$\frac{2}{6}$ + $\frac{4}{6}$ = 1
fraction   fraction   whole number

$\frac{3}{4}$ + $\frac{1}{4}$ = 1
fraction   fraction   whole number

$\frac{2}{5}$ + $\frac{3}{5}$ = 1

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

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

$\frac{3}{8}$ + $\frac{5}{8}$ = 1

one less	one more	ten less	ten more	100 less	100 more
24, 25, 26		39, 49, 59		3, 103, 203	
50, 51, 52		5, 15, 25		757, 857, 957	
32, 33, 34		18, 28, 38		176, 276, 376	
16, 17, 18		47, 57, 67		215, 315, 415	

	ten thousands	thousands	hundreds	tens	ones
27 x 1 =				2	7
27 x 10 =			2	7	0
27 x 100 =		2	7	0	0
27 x 1000 =	2	7	0	0	0

	ten thousands	thousands	hundreds	tens	ones
19 x 1 =				1	9
19 x 10 =			1	9	0
19 x 100 =		1	9	0	0
19 x 1000 =	1	9	0	0	0

28

Fill in the missing factors to complete each number sentence.

8 x **5** = 40	3 x **7** = 21	9 x **8** = 72
8 x 3 = 24	**5** x 9 = 45	**12** x 6 = 72
7 x **7** = 49	8 x **7** = 56	6 x **8** = 48
4 x **4** = 16	4 x **5** = 20	5 x **5** = 25
9 x 4 = 36	**4** x 8 = 32	**5** x 6 = 30
3 x **7** = 21	12 x **8** = 96	6 x **6** = 24
5 x 3 = 15	**7** x 9 = 63	**12** x 3 = 36

Can you solve these multiplication puzzles?

Puzzle 1:
2	x	4	=	8
x		x		x
3	x	3	=	9
=		=		=
6	x	12	=	72

Puzzle 2:
3	x	5	=	15
x		x		x
4	x	1	=	4
=		=		=
12	x	5	=	60

Puzzle 3:
1	x	4	=	4
x		x		x
2	x	6	=	12
=		=		=
2	x	24	=	48

Put these numbers in order from smallest to largest.

21   41   12   27   45

12 (smallest)   **21**   **27**   **41**   **45** (largest)

315   351   311   113   305

113 (smallest)   **305**   **311**   **315**   **351** (largest)

Complete these Fact Family houses.

House 1 (96, 12, 8):
12 x **8** = 96
8 x 12 = 96
96 ÷ 12 = **8**
96 ÷ **8** = **12**

House 2 (72, 8, 9):
8 x **9** = 72
9 x **8** = 72
72 ÷ **8** = **9**
72 ÷ **9** = **8**

House 3 (64, 8, 8):
8 x **8** = 64
8 x 8 = 64
64 ÷ 8 = **8**
64 ÷ **8** = 8

House 4 (56, 7, 8):
7 x **8** = 56
8 x **7** = 56
56 ÷ 7 = **8**
56 ÷ **8** = **7**

Date _____

Trace then write each word.

whole number

mixed number

fraction

What fractional part is colored?

Row 1: 7/12   3/14   5/5   5/8   9/14

Row 2: 8/18   9/18   12/28   24/50   6/12

Multiply the number by each of the numbers in the center circle. Write the products in the outer circle.

Circle 1: 8x — 96, 8, 16, 24, 88, 12, 32, 80, 40, 64, 56, 48

Circle 2: 7x — 84, 7, 14, 21, 77, 28, 70, 63, 56, 49, 42, 35

Circle 3: 9x — 108, 9, 18, 27, 99, 36, 90, 45, 81, 72, 63, 54

Capacity Measurement:

How many cups fit in one quart? **4**
How many pints fit in one quart? **2**
How many quarts fit in one gallon? **4**
How many cups fit in one gallon? **16**
How many pints fit in one gallon? **8**
How many pints fit in two gallons? **16**

Write the correct comparison symbol (<, >, =) between each set of capacity measurements. Remember the shark always wants to eat the LARGER amount.

Row 1: =   =   >
Row 2: >   >   <
Row 3: =   =   >

Let's make a VENN DIAGRAM.

Think of your favorite book that has been made into a movie. Write down as many things as you can think of that the book and movie have in common, then write lists for just the book or movie that they don't share.

Book   both   Movie
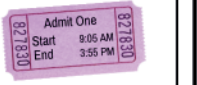
ANSWERS MAY VARY

Date _____

30 minutes earlier	15 minutes earlier	current time	15 minutes later	30 minutes later
5:00	5:15	5:30	5:45	6:00
2:45	3:00	3:15	3:30	3:45
12:50	1:05	1:20	1:35	1:50
8:30	8:45	9:00	9:15	9:30

How much time has elapsed?

Clock 1:
time	hours	minutes
2:25 PM		35
3:00	6	
9:00		33
9:33 PM		

Are there more than 60 minutes? If so, TRADE 60 minutes for 1 hour.
7 hours and **8** minutes

Clock 2:
time	hours	minutes
5:12 AM		48
6:00	2	
8:00		47
8:47 AM		

Are there more than 60 minutes? If so, TRADE 60 minutes for 1 hour.
3 hours and **35** minutes

How long is your flight?

Departure 8:20 AM   Arrival 4:45 PM

time	hours	minutes
8:20 AM		40
9:00 AM	1	
2:00 PM	4	
4:00 PM		45
4:45 PM		

____ 85 minutes

Are there more than 60 minutes? If so, TRADE 60 minutes for 1 hour.
6 hours and **25** minutes

How long is your movie?

The Lego Movie   Start 10:10 AM   End 1:15 PM

time	hours	minutes
10:10 AM	11	50
1	2	15
1:15 PM		

____ minutes

Are there more than 60 minutes? If so, TRADE 60 minutes for 1 hour.
3 hours and **5** minutes

How long is your day camp?

Admit One   Start 9:05 AM   End 3:55 PM

time	hours	minutes
9:05 AM	10	55
3	5	5
3:55 PM		

____ minutes

Are there more than 60 minutes? If so, TRADE 60 minutes for 1 hour.
6 hours and **0** minutes

Page 33

Find products.	Find quotients.	Find products.	Find quotients.
6 x 12 = 72	36 ÷ 6 = 6	8 x 12 = 96	64 ÷ 8 = 8
6 x 3 = 18	72 ÷ 6 = 12	7 x 12 = 84	72 ÷ 8 = 9
6 x 8 = 48	66 ÷ 6 = 11	8 x 8 = 64	63 ÷ 7 = 9
6 x 5 = 30	24 ÷ 6 = 4	7 x 5 = 35	84 ÷ 7 = 12
6 x 6 = 36	42 ÷ 6 = 7	8 x 6 = 48	56 ÷ 8 = 7
6 x 2 = 12	54 ÷ 6 = 9	7 x 8 = 56	96 ÷ 8 = 12
6 x 11 = 66	18 ÷ 6 = 3	8 x 11 = 88	56 ÷ 7 = 8
6 x 9 = 54	48 ÷ 6 = 8	7 x 9 = 63	48 ÷ 8 = 6
6 x 4 = 24	30 ÷ 6 = 5	8 x 9 = 72	49 ÷ 7 = 7
6 x 7 = 42	12 ÷ 6 = 2	7 x 7 = 49	40 ÷ 8 = 5

Draw hands on each clock to show:

Quarter Before **Current Time** **Quarter After** **Half Past**
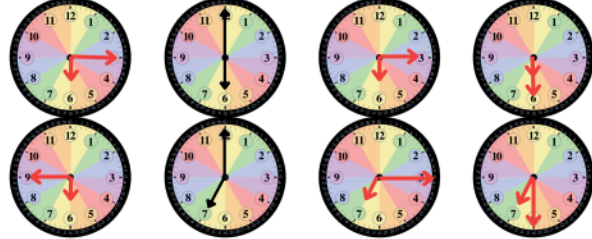
1 4 2 8
thousands hundreds tens ones
Round to the nearest TEN — 1430
Round to the nearest HUNDRED — 1400
Round to the nearest THOUSAND — 1000

2 5 6 0
thousands hundreds tens ones
Round to the nearest TEN — 2560
Round to the nearest HUNDRED — 2600
Round to the nearest THOUSAND — 3000

1 8 3 1
thousands hundreds tens ones
Round to the nearest TEN — 1830
Round to the nearest HUNDRED — 1800
Round to the nearest THOUSAND — 2000

2 1 1 4
thousands hundreds tens ones
Round to the nearest TEN — 2110
Round to the nearest HUNDRED — 2100
Round to the nearest THOUSAND — 2000

33

Page 34

Date _____

Find the price of each meal.   How much change will I get if I pay with $10.00?

FUN FOOD MENU

Hamburger $3.20
Hot dog $1.50
Pizza $2.80

French Fries $1.65
Salad $1.25
Apple Slices $1.88

Soda $1.19
Ice cream $2.79

Hamburger 3.20
French Fries 1.65
Soda + 1.19
total $ 6.04
$10.00
- 6.04
total change $ 3.96

Pizza 2.80
Soda + 1.19
total $ 3.99
$10.00
- 3.99
total change $ 6.01

Hot dog 1.50
Salad 1.25
Ice Cream + 2.79
total $ 5.54
$10.00
- 5.54
total change $ 4.46

Order these numbers from smallest to largest.

101 113 110 131 311	101 (smallest) 110 113 131 311 (largest)
189 118 198 181 108	108 (smallest) 118 181 189 198 (largest)
121 112 120 123 127	112 (smallest) 120 121 123 127 (largest)
401 104 114 410 411	104 (smallest) 114 401 410 411 (largest)
678 768 867 786 687	678 (smallest) 687 768 786 867 (largest)

34

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one less	one more	ten less	ten more	100 less	100 more
415	, 416, 417	406	, 416, 426	316	, 416, 516
100	, 101, 102	100	, 101, 102	100	, 101, 102
236	, 237, 238	236	, 237, 238	236	, 237, 238
311	, 312, 313	311	, 312, 313	311	, 312, 313

How much money is this?

$ 7 . 27 (dollars cents) $ 3 . 03 (dollars cents) $ 3 . 18 (dollars cents) $ 10 . 61 (dollars cents) $ 3 . 33 (dollars cents)

Complete these Fact Family houses.

48 / 6 8
6 x 8 = 48
8 x 6 = 48
48 ÷ 6 = 8
48 ÷ 8 = 6

42 / 6 7
6 x 7 = 42
7 x 6 = 42
42 ÷ 7 = 6
42 ÷ 6 = 7

54 / 9 6
9 x 6 = 54
6 x 9 = 54
54 ÷ 6 = 9
54 ÷ 9 = 6

72 / 12 6
12 x 6 = 72
6 x 12 = 72
72 ÷ 6 = 12
72 ÷ 12 = 6

66 / 6 11
6 x 11 = 66
11 x 6 = 66
66 ÷ 11 = 6
66 ÷ 6 = 11

Fill in the blanks of these multiplication circles so that the outer circle is the PRODUCT of the middle circle and the innermost circle.

6x circle: 66 42 / 48 11 7 72 / 8 6x 12 / 18 3 9 30 / 54 36

7x circle: 35 28 / 49 5 4 63 / 7 7x 9 / 84 12 11 42 / 56 77

8x circle: 64 88 / 32 8 11 72 / 8x 5 / 96 12 7 40 / 56 48

35

Page 36
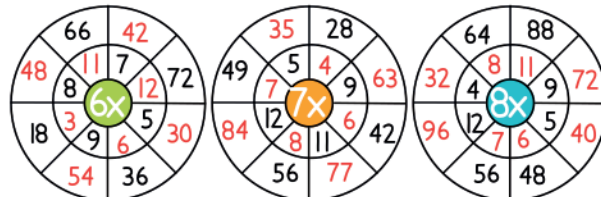
Date _____

Draw lines to match each picture in the top row with the correct tool in the bottom row. Each tool has two matches.

1 yard = 3 feet   1 foot = 12 inches

Convert these US Customary units of length.

1 yard = 3 feet	1 yard = 36 inches	36 inches = 3 feet
2 yards = 6 feet	12 inches = 1 foot	36 inches = 1 yard
9 feet = 3 yards	15 feet = 180 inches	12 feet = 4 yards
4 feet = 3 1/3 inches	15 feet = 5 yards	2 yards = 72 inches

Which unit of measurement should we use? Circle the correct unit.

| degrees pounds inches | gallons centimeters | inches centimeters miles | pounds tons ounces |
| inches feet yards miles | quarts miles teaspoons | pounds tons ounces | degrees yards miles |

36

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Fill in each square with factors such that the product of each set of factors, horizontally and vertically, are correct.

6 5 → 30	**6 4** → 24	**6 9** → 54	**6 5** → 30
7 6 → 42	**6 4** → 24	**3 8** → 24	**7 9** → 63
42 30	36 16	18 72	42 45

6 6 → 36	**6 8** → 48	**6 4** → 24	**6 2** → 12
5 9 → 45	**11 7** → 77	**6 7** → 42	**8 9** → 72
30 54	66 56	36 28	48 18

Draw lines to match the fractions.

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

How many chocolate candies? Read each number aloud.

thousands	hundreds	tens	ones
4	4	2	0

thousands	hundreds	tens	ones
2	7	3	6

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Date _____

What length are the following items? Use inches and write the units.

length __8 1/2__

length __9 1/4__

length __7 1/2__

length __10 3/4__

Which units of length should we use? Circle the correct unit.

inches feet yards **miles**	**inches** feet yards miles	**inches** feet yards miles	feet yards miles pounds
inches feet yards miles	inches cm **yards** miles	inches feet yards **miles**	**inches** feet yards miles
centimeters kilometers	meters **kilometers**	**meters** kilometers	**centimeters** kilometers

Page 39

Use these broken pieces of rulers to find the length of each block.

length __1 3/4__ inches

length __1 9/16__ inches

length __2 1/4__ inches

length __7/8__ inch

Use a ruler to measure these line segments in customary and metric units.

3½ in.   9cm 5mm

5 in.   12cm 7mm

5½ in.   14 cm

Fill in each square with factors such that the product of each set of factors, horizontally and vertically, are correct.

4 5 → 20	**4 3** → 12	**4 9** → 36	**4 8** → 32
7 6 → 42	**6 2** → 12	**3 8** → 24	**5 9** → 45
28 30	24 6	12 72	20 72

4 6 → 24	**4 11** → 44	**4 7** → 28	**4 8** → 32
5 8 → 40	**8 7** → 56	**4 6** → 24	**9 2** → 18
20 48	32 77	16 42	36 16

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Date _____

How much juice is in each measuring container? (oz is the abbreviation for ounces)

12 oz   13 oz   6 oz   8 cup   16 cups   2 oz

700 mL   850 mL   350 mL   500 mL   300 mL   1,000 L

Graph the amounts of juice above in the columns below.

Is this hard? Why?

orange juice   lemonade   grape juice

You don't really have to graph the amounts. I just wanted you to think about WHY it is difficult to graph amounts in different units of measurement on the same graph.

Convert these US Customary Units.

1 gallon = __4__ quarts   1 cup = __8__ ounces
1 quart = __4__ cups   3 cups = __24__ ounces
1 gallon = __16__ cups   1 quart = __32__ ounces
2 gallons = __32__ cups   128 ounces = __1__ gallon
20 cups = __5__ quarts   2 ounces = __1__ Tablespoon

18 cups = __1__ gallon __1__ pint   1 gallon 4 cups = __5__ quarts
6 cups = __1__ quart __1__ pint   16 ounces = __2__ cups
2 gallons = __8__ quarts   16 Tablespoons = __8__ ounces
40 ounces = __1__ quart __1__ cup   52 cups = __3__ gallons __1__ quart

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Write the correct comparison symbol (<, >, =) between each set of capacity measurements. Remember the shark always wants to eat the LARGER amount.

(Comparison symbols: =, =, >, =, >, >, <, =, <)

Circle the best estimate of the capacity of each item.

1 L / 1mL / 1kL	1 c / 1gal / **1tsp**	1 g / 1mg / **1kg**	1 L / **1mL** / 1kL
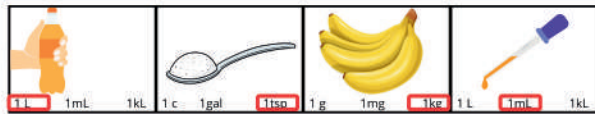
Convert these **US Customary** length units.

14 feet = _4_ yards _2_ feet   1 mile = _5280_ feet

15 inches = _1_ foot _3_ inches   20 feet = _6_ yards _2_ feet

29 feet = _9_ yards _2_ feet   35 inches = _2_ feet _11_ inches

5 feet = _1_ yard _24_ inches   4 feet = _1_ yard _12_ inches

Convert these **metric** length units.

70 cm = _700_ mm   10 mm = _1_ cm   59 m = _5900_ cm

90 mm = _9_ cm   40 mm = _4_ cm   800 mm = _80_ cm

1000 cm = _10_ m   500 cm = _5_ m   61m = _6100_ cm

1000 mm = _1_ m   10 m = _1000_ cm   9000 mm = _900_ cm

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Which units of weight should we use? Circle the correct unit.

ounces pounds **tons**	**ounces** pounds tons	**ounces** pounds tons	ounces **pounds** tons
ounces pounds tons	ounces pounds **tons**	ounces **pounds** tons	**ounces** pounds tons
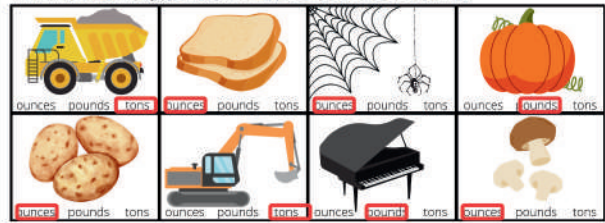
Find the weight of each item.

_0_ lb _8_ oz   _3_ lb _2_ oz   _0_ lb _2_ oz   _3_ lb _8_ oz   _7_ lb _12_ oz

_5_ kg _500_ g   _0_ kg _600_ g   _0_ kg _200_ g   _1_ kg _100_ g   _0_ kg _800_ g

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1 pound (lb) = 16 ounces (oz) **1 ton = 2000 lb**	**1 kilogram (kg) = 1000 grams (g)** **1 g = 1000 mg**

Convert **US Customary** weight units.   Convert **metric** weight units.

1 lb = _16_ oz   1 kg = _1000_ g

2 lbs = _32_ oz   20 kg = _2000_ g

1 ton = _2000_ lbs   3500 g = _3_ kg _500_ g

35 oz = _2_ lb _3_ oz   4000 mg = _4_ g

50 oz = _4_ lb _2_ oz   5100 g = _5_ kg _100_ g

Measurement word problems. Draw a picture then write a number sentence to solve the problem.

A wood board is 4 feet long. We need to cut it into 6 equal pieces. How long will each piece be? 4 feet = _48_ inches _48_ ÷ _6_ = _8_ _{number of inches number of pieces length of each piece}	You have one quart of orange juice. If you pour an equal amount into 4 glasses, how many ounces will each glass hold? 1 quart = _32_ ounces _32_ ÷ _4_ = _8_ _{number of ounces number of glasses amount in each glass}
Your water bottle holds 9 liters. It's half full, how much water do you have? 9 L = _9000_ mL _9000_ ÷ _2_ = _5000_ _{amount of water in mL amount in bottle}	You gathered eggs from your chickens. The biggest egg is 54 grams and the smallest egg is 37 grams. How much bigger is the biggest egg? 17 grams
You got up at 8:10, which is 40 minutes later than usual. What time do you usually get up? 7:30	You started math at 9:15 am and it took you 45 minutes to complete. Then you read a book for 30 minutes and studied science for 20 minutes. What time did you finish? 10:50

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Page 44

Use a red crayon to show the freezing point and the boiling point of water as well as normal body temperature. These were given in today's video. Write the temperatures in both scales on the lines below the thermometers.

Normal Body Temp.   Boiling Point   Freezing Point
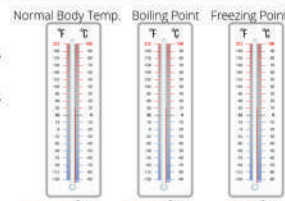
Normal body temperature: _35_ °C

Freezing point of water: _0_ °C

Boiling point of water: _100_ °C

98.6 °F / 35 °C   212 °F / 100 °C   32 °F / 0 °C

Color pieces of each bottom shape so it matches the top shape. Then write each equivalent fractions number sentence.

$\frac{2}{3} = \frac{4}{6}$ $\frac{3}{4} = \frac{6}{8}$ $\frac{2}{5} = \frac{4}{10}$ $\frac{1}{4} = \frac{3}{12}$
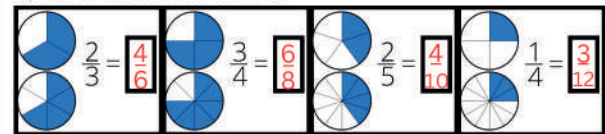
Write each temperature using both degrees fahrenheit and celsius. Circle any temperatures you recognize as important.

a negative temperature?

50°F / 9°C   20°F / -7°C   96°F / 35°C   32°F / 0°C   116°F / 42°C   70°F / 20°C   116°F / 42°C   40°F / 4°C

44

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Draw lines to partition each bar into the number specified by the denominator and shade each bar to match the numerator of the fraction in front of it. Then draw lines to match the equivalent fractions in both of the columns. Your partitions don't have to be perfect!

$\frac{2}{3}$ $\frac{2}{5}$

$\frac{1}{2}$ $\frac{3}{4}$

$\frac{6}{8}$ $\frac{4}{6}$

$\frac{2}{2}$ $\frac{2}{4}$

$\frac{4}{10}$ $\frac{1}{1}$

Find the products. What is the significance of the colored problems?

8 x 5 = 40	7 x 7 = 49	6 x 12 = 72	4 x 2 = 8
8 x 12 = 96	7 x 11 = 77	6 x 11 = 66	4 x 6 = 24
8 x 6 = 48	7 x 8 = 56	6 x 8 = 48	4 x 4 = 16
8 x 3 = 24	7 x 9 = 63	6 x 4 = 24	4 x 11 = 44
8 x 11 = 88	7 x 3 = 21	6 x 2 = 12	4 x 1 = 4
8 x 7 = 56	7 x 4 = 28	6 x 7 = 42	4 x 3 = 12
8 x 1 = 8	7 x 2 = 14	6 x 10 = 60	4 x 8 = 32
8 x 9 = 72	7 x 12 = 84	6 x 5 = 30	4 x 5 = 20
8 x 2 = 16	7 x 6 = 42	6 x 1 = 6	4 x 10 = 40
8 x 10 = 80	7 x 1 = 7	6 x 3 = 18	4 x 12 = 48
8 x 8 = 64	7 x 5 = 35	6 x 9 = 54	4 x 7 = 28
8 x 4 = 32	7 x 10 = 70	6 x 6 = 36	4 x 9 = 36

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Date _____

Draw lines to match each data set to the best type of graph.

PICTOGRAPH   VENN DIAGRAM   LINE GRAPH   BAR GRAPH   PIE CHART

A type of bar graph, pictographs are pictorial representations of data using images, icons, or symbols.

Visual organizer of overlapping circles that explores the relationship between a set of different things.

Represents continuous data using lines to connect individual data points.

Makes it easy to compare DISCRETE data between different groups, using bars.

Represents data as a circle. The slices of pie show the size of the data relative to each other.

Graph your growth over the year.

Graph the hair colors of everyone in your neighborhood.

Use pictures to represent your friend's favorite pets.

Your family is one whole group. Graph your family members favorite ice cream flavors as a percentage of the whole.

Compare the similarities and differences of dogs and cats.

Fill in the missing numbers.

98	99	100	101	102	103	104	105	106	107

Find the missing member of each FACT FAMILY.

10 → 4, 6   32 → 4, 8   16 → 4, 4   8 → 4, 2   48 → 4, 12

28 → 4, 7   12 → 4, 3   44 → 4, 11   20 → 5, 4   36 → 9, 4

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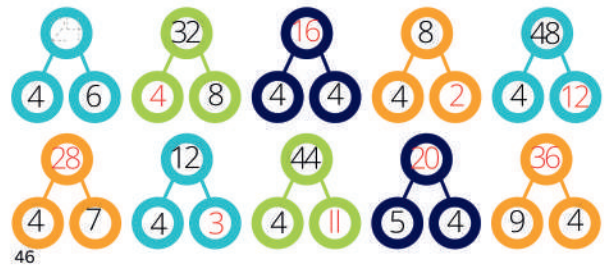
How long is this sewing needle?

$2\frac{1}{8}$ in

Use a ruler to measure each item in Customary and Metric units.

$11\frac{1}{2}$ cm $4\frac{1}{2}$ in

13 cm $5\frac{1}{8}$ in

7 cm $2\frac{3}{4}$ in

12 cm $4\frac{3}{4}$ in

How many chocolate candies? Read each number aloud.

6	1	4	3
thousands	hundreds	tens	ones

1	9	4	0
thousands	hundreds	tens	ones
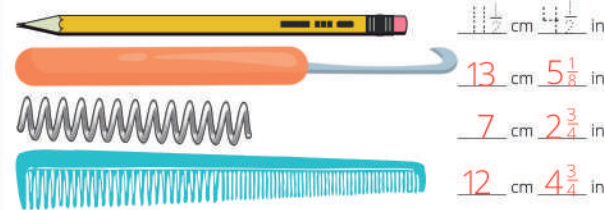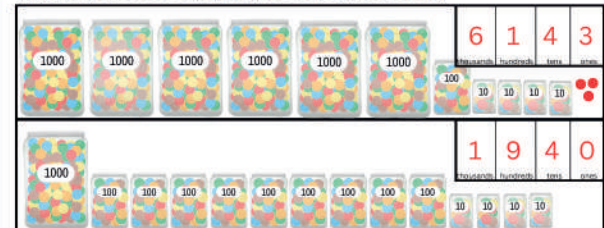
Convert these length units.

16 ft = 5 yd 1 ft   12 km = 12000 m   3 cm = 30 mm

14 in = 1 ft 2 in   3000 mm = 3 m   900 mm = 90 cm

25 ft = 8 yd 1 ft   2 m = 200 cm   6 m = 6000 mm

1 mi = 5280 ft   37 m = 3700 cm   100 mm = 10 cm

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Date _____

Build a FREQUENCY TABLE and then a PICTOGRAPH.

chocolate chip	23
tree	23
heart	17

KEY
Each circle represents two cookies.

	chocolate chip	tree	heart

Find products.

4 x 3 = 12	6 x 2 = 12
4 x 7 = 28	6 x 1 = 6
4 x 4 = 16	6 x 8 = 48
4 x 11 = 44	6 x 4 = 24
4 x 2 = 8	6 x 12 = 72
4 x 12 = 48	6 x 7 = 42
4 x 8 = 32	6 x 10 = 60
4 x 5 = 20	6 x 9 = 54
4 x 10 = 40	6 x 11 = 66
4 x 1 = 4	6 x 3 = 18
4 x 6 = 24	6 x 5 = 30
4 x 9 = 36	6 x 6 = 36

Find quotients.

36 ÷ 4 = 9
24 ÷ 4 = 6
16 ÷ 4 = 4
44 ÷ 4 = 11
20 ÷ 4 = 5
32 ÷ 4 = 8
12 ÷ 4 = 3
48 ÷ 4 = 12
28 ÷ 4 = 7
8 ÷ 4 = 2
40 ÷ 4 = 10

48

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one less	one more	ten less	ten more	100 less	100 more
10, 11, 12		__3, 13, 23		619, 719, 819	
18, 19, 20		54, 55, 56		100, 101, 102	
71, 72, 73		28, 29, 30		243, 244, 245	

Color pieces of each bottom shape so it matches the top shape. Then write each equivalent fractions number sentence.

$\frac{3}{4} = \frac{6}{8}$ $\frac{1}{3} = \frac{3}{9}$ $\frac{5}{6} = \frac{10}{12}$ $\frac{3}{5} = \frac{6}{10}$

$\frac{2}{3} = \frac{6}{9}$ $\frac{4}{5} = \frac{8}{10}$ $\frac{2}{6} = \frac{4}{12}$ $\frac{1}{2} = \frac{3}{6}$

Draw the correct comparison symbol (<, >, =) between each set of fractions below. Use your FRACTION BARS or FRACTION CIRCLES to help.

$\frac{2}{2} > \frac{3}{4}$ $\frac{2}{8} > \frac{2}{9}$ $\frac{1}{3} = \frac{3}{9}$

$\frac{2}{3} = \frac{4}{6}$ $\frac{5}{6} > \frac{5}{8}$ $\frac{1}{1} = \frac{7}{7}$

Convert these capacity units.

1 c = 8 oz   1 Tbsp = 3 tsp   9 qt = 2 gal 2 pt
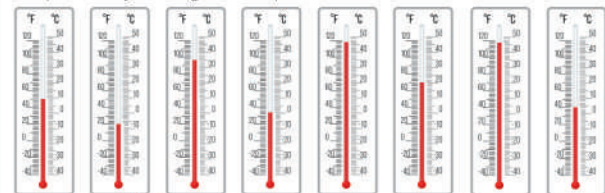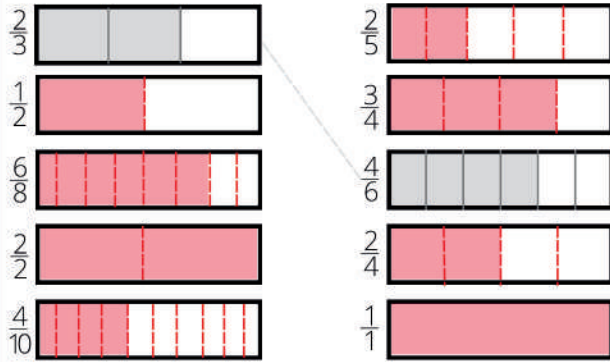1 qt = 4 c   1 gal = 8 pt   16 oz = 2 c
1 qt = 32 oz   1 gal = 4 qt   10 pt = 1 gal 4 c
16 c = 1 gal   9 tsp = 3 Tbsp   16 Tbsp = 12 oz
2 oz = 4 Tbsp   1 c = 16 Tbsp   20 Tbsp = 1 c 2 oz

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Date _____

The superheroes had a race. The graph below shows how many miles each superhero ran in one hour. How many miles did each superhero run?

The Fastest Superheroes

(bar graph: Number of Miles Run vs Superheroes)

Wonder Woman: 17 mi.
Captain America: 23 mi.
Back Widow: 18 mi.
Iron Man: 14 mi.
Spiderman: 19 mi.
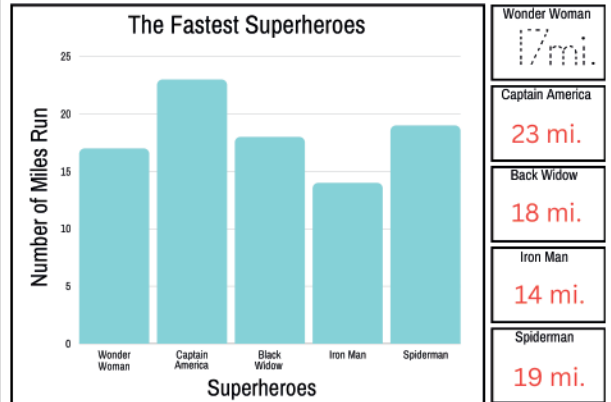
Which superhero ran the most miles? Captain America
Who ran the least? Iron Man
How many MORE miles did Spiderman run than Iron Man? 5 mi.
How many miles did all of the superheroes run together? 91 mi.
How many MORE miles did Captain America run than Spiderman? 4 mi.

Find the sums.

1 + 2 = 3   4 + 5 = 9   8 + 7 = 15
10 + 20 = 30   40 + 50 = 90   80 + 70 = 150
100 + 200 = 300   400 + 500 = 900   800 + 700 = 1500

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	ten thousands	thousands	hundreds	tens	ones
15 x 1 =				1	5
15 x 10 =			1	5	0
15 x 100 =		1	5	0	0
15 x 1000 =	1	5	0	0	0

	ten thousands	thousands	hundreds	tens	ones
99 x 1 =				9	9
99 x 10 =			9	9	0
99 x 100 =		9	9	0	0
99 x 1000 =	9	9	0	0	0

Color the coins needed to buy the football. $3.13

Color the coins needed to buy the cap. $2.98

Divide these hearts into 4 groups.
How many stars are in each group? What is $\frac{1}{4}$ of 20? 5

Divide these balls into 2 groups.
How many balls are in each group? What is $\frac{1}{2}$ of 22? 11

Divide these oranges into 3 groups.
What is $\frac{1}{3}$ of 24? 8

Divide these trapezoids into 5 groups.
What is $\frac{1}{5}$ of 40? 8

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Date _____

Lizzy took the temperature at 10:00 am every day last week in Plano, TX.

Plano, TX Temperature in October

(line graph: Temperature in degrees Fahrenheit vs October Date)

Is this data DISCRETE or CONTINUOUS?
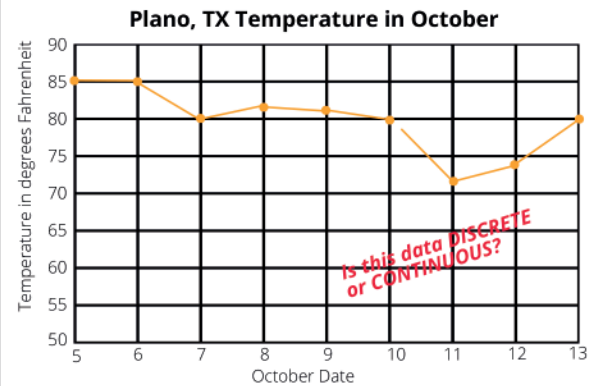
What is our temperature scale? Farenheit
Why do our temps start at 50 degrees and end at 90 degrees? It's October, temperatures are likely between 50 and 90 degrees
What was the temperature October 9? How did you estimate? 81-82
Which date was the coldest? 11   Warmest? 5
Which date had the largest temperature drop? 10
Why did I use a LINE GRAPH to portray temperature? Data is continuous.
Why does the graph specify the time of the temperature taken? Temperatures vary throughout the day.
Does temperature change throughout the day? Yes.
Is it colder at noon or midnight? Midnight.

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Find the sums with regrouping.

$$149 + 128 = 277$$ $$265 + 187 = 452$$ $$527 + 293 = 820$$ $$177 + 341 = 518$$ $$209 + 139 = 348$$

hundreds tens ones

Put these numbers in order from smallest to largest.

15	81	18	115	51

15 (smallest) 18 51 81 115 (largest)

917	719	179	971	791

179 (smallest) 719 791 917 971 (largest)

Fill in the missing parts of each number sentence.

7 x 8 = **56**   4 x **7** = 28   11 x 12 = **132**
4 x 3 = 12   12 x 9 = **108**   **12** x 6 = 72
7 x 7 = **49**   8 x **9** = 72   6 x 9 = **54**
4 x **8** = 32   4 x 12 = **48**   5 x **5** = 25
9 x 4 = **36**   **5** x 8 = 40   8 x 6 = **48**
3 x **9** = 27   12 x 8 = **96**   6 x **4** = 24
7 x 3 = **21**   **7** x 9 = 63   4 x 5 = **20**

Add the fractions and color the sections of the empty circle to find the SUM.

$\frac{1}{5} + \frac{4}{5} = \frac{5}{5} = 1$ $\frac{2}{5} + \frac{3}{5} = \frac{5}{5} = 1$ $\frac{1}{3} + \frac{2}{3} = \frac{3}{3} = 1$

$\frac{2}{6} + \frac{4}{6} = \frac{6}{6} = 1$ $\frac{5}{6} + \frac{1}{6} = \frac{6}{6} = 1$ $\frac{3}{4} + \frac{1}{4} = \frac{4}{4} = 1$

$\frac{7}{8} + \frac{1}{8} = \frac{8}{8} = 1$ $\frac{2}{8} + \frac{6}{8} = \frac{8}{8} = 1$ $\frac{3}{8} + \frac{5}{8} = \frac{8}{8} = 1$

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Date _____

Each WHOLE day is 24 hours. This is how Lizzy spent her day today.

Pie chart: Practicing 11%, Playing 11%, Sleeping 34%, Learning 24%, Eating 14%, Reading 6%

How did she spend most of her time?
Sleeping.

How did she spend least of her time?
Reading.

On which two activities did she spend an equal amount of time?
Practicing and Playing.

Why do all of the activities add up to 100%?
In a pie chart, it has to add up to 100%

What does YOUR daily schedule look like? Color the pie chart below. It has 24 sections, 1 section per hour. Label your sections with fractions, not percentages. So if you sleep for 8 hours, 8 sections would be sleeping and the fraction would be 8/24. Then write some questions below for your mom or dad to answer.

This pie chart has 24 sections

ANSWERS MAY VARY

Multiply the number by each of the numbers in the center circle. Write the products in the outer circle.

3x: 36, 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33
4x: 48, 4, 8, 12, 16, 20, 24, 28, 32, 36, 40, 44
8x: 96, 8, 16, 24, 32, 40, 48, 56, 64, 72, 80, 88

54

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One tenth means one whole divided into ten parts. We can write "divided by" as 1÷10 or as $\frac{1}{10}$ or as 1/10. They all mean the same thing.

Per also means "divided by". Cent means one hundred. Per cent means "divided by one hundred".

percent
$15\% = \frac{15}{100}$ ← per ← cent $19\% = \frac{19}{100}$

$27\% = \frac{27}{100}$ $68\% = \frac{68}{100}$ $56\% = \frac{56}{100}$

$33\% = \frac{33}{100}$ $41\% = \frac{41}{100}$ $72\% = \frac{72}{100}$

Draw lines to divide each set into equal halves. If there is a leftover, circle it in red, then use a vertical line to cut it in half. Split those halves between each group. How many are in each group?

$9 ÷ 2 = 4\ 1/2$ $3 ÷ 2 = 1\ 1/2$ $8 ÷ 2 = 4$

$7 ÷ 2 = 3\ 1/3$ $6 ÷ 2 = 3$ $5 ÷ 2 = 3\ 1/2$

Find the missing member of each FACT FAMILY.

18 — 3, 6
24 — 8, 3
21 — 3, 7
12 — 4, 3
36 — 3, 12

15 — 5, 3
9 — 3, 3
27 — 3, 9
33 — 11, 3
6 — 2, 3

55

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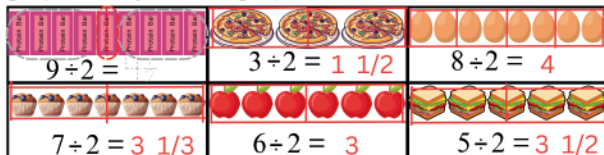
Date _____

Add the multiples of 3 and 4 to the correct circles. Cross out each number as you use it. Which numbers do both groups share?
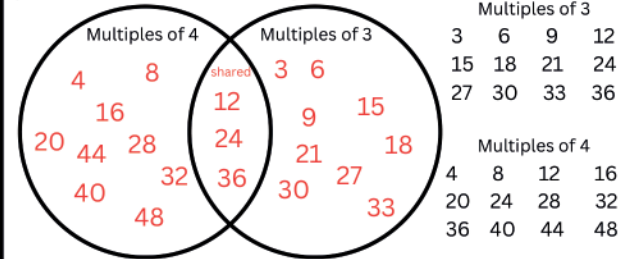
Multiples of 4: 4, 8, 16, 20, 44, 28, 40, 32, 48
shared: 12, 24, 36
Multiples of 3: 3, 6, 15, 9, 21, 18, 30, 27, 33

Multiples of 3
3 6 9 12
15 18 21 24
27 30 33 36

Multiples of 4
4 8 12 16
20 24 28 32
36 40 44 48

Draw lines to divide each set into equal halves. If there is a leftover, circle it in red, then use a vertical line to cut it in half. Split the HALVES between the two groups. How many are in each group?

$7 ÷ 2 = 3\ 1/2$ $6 ÷ 2 = 3$ $5 ÷ 2 = 3\ 1/2$
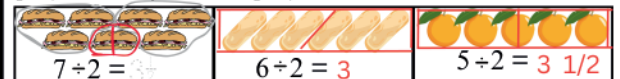
Draw lines to divide each set into equal FOURTHS. Each fourth is one group. If there is a leftover, circle it in red, then use two lines to cut it into FOURTHS. Split the leftover FOURTH between the groups. How many are in each group?

$12 ÷ 4 = 3$ $9 ÷ 4 = 2\ 1/4$ $4 ÷ 4 = 1$

$5 ÷ 4 = 1\ 1/4$ $8 ÷ 4 = 2$ $13 ÷ 4 = 3\ 1/4$

56

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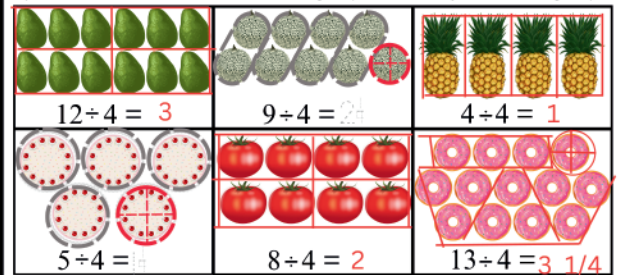
Use this chart to fill out both of the Venn Diagrams below with traits the kids in the chart have in common.

name	swims	hikes	bikes
Elsa		X	X
Caleb			X
Mae	X	X	X
Lizzy	X	X	
Henry	X		
Jason		X	
Brandt	X	X	X
Claire		X	
Jen	X	X	X
Natali	X	X	
Levi	X		
Nat		X	X
Katie	X	X	
Lily			X

swims — hikes

Henry, Lizzy, Katie, Natali, Jason, Lily, Levi, Mae, Brandt, Jen, Elsa, Nat, Claire, Caleb

bikes
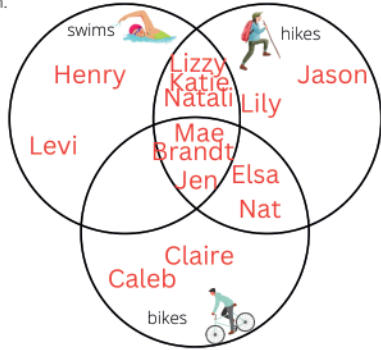
Each block has 100 squares. Fill in the blanks and color squares to show each percentage.

$36\% = \dfrac{36}{100}$ $75\% = \dfrac{75}{100}$ $54\% = \dfrac{54}{100}$

$12\% = \dfrac{12}{100}$ $60\% = \dfrac{60}{100}$ $93\% = \dfrac{93}{100}$

$42\% = \dfrac{42}{100}$ $99\% = \dfrac{99}{100}$ $16\% = \dfrac{16}{100}$

$1\% = \dfrac{1}{100}$ $88\% = \dfrac{88}{100}$ $46\% = \dfrac{46}{100}$

Fill in each square with factors such that the product of each set of factors, horizontally and vertically, are correct.

3	4	12
8	12	96
24	48	

3	9	27
3	7	21
9	63	

3	8	24
10	5	50
30	40	

3	6	18
12	11	132
36	66	

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Date _____

Complete the chart. Draw base ten blocks using a cube to represent each thousand, a large square to represent each hundred, a long, skinny rectangle to represent each ten and and a small square to represent each one.

Standard Form / Word Form / Expanded Form	Base Ten Blocks			
2,193 / One thousand four hundred ninety-seven / 2000 + 100 + 90 + 3	Thousands	Hundreds	Tens	Ones
4,532 / Four thousand five hundred thirty-two / 4000 + 500 + 30 + 2	Thousands	Hundreds	Tens	Ones
2,679 / Two thousand six hundred sevety-nine / 2000 + 600 + 70 + 9	Thousands	Hundreds	Tens	Ones
3,018 / Three thousand and eighteen / 3000 + 10 + 8	Thousands	Hundreds	Tens	Ones

What numbers do these base ten blocks represent? Read each number aloud.

4 (hundreds) 1 (tens) 3 (ones)   3 (hundreds) 5 (tens) 9 (ones)   3 (thousands) 7 (hundreds) 0 (tens) 8 (ones)

1 (thousands) 3 (hundreds) 1 (tens) 7 (ones)   2 (hundreds) 4 (tens) 8 (ones)   1 (thousands) 4 (hundreds) 8 (tens) 1 (ones)

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Graph these pairs of shoes on the line plot using x's.

Why did I choose the numbers 6-10 for this line plot number line?

(line plot with x's over 6, 7, 8, 9, 10)

How much time has elapsed between each set of clocks?

10 minutes   55 minutes   35 minutes
30 minutes   4 hours   2 hours

How much time has elapsed?

time	hours	minutes
9:10		50
10:00	1	30
11:00		
11:30		

1 hour and 20 minutes
2 hour and 20 minutes

time	hours	minutes
1:15		
2:00	1	45
3:00		20
3:20		

2 hours and 5 minutes

time	hours	minutes
2:03		
3:00	2	57
4:00		
5:00		15
5:15		

3 hour and 12 minutes

time	hours	minutes
11:05		55
12:00		
12:10		10

1 hour and 5 minutes

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Date _____

Figure out the SCALE of each number line, then fill in the missing numbers.

60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78

8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44

75 80 85 90 95 100 105 110 115 120 125 130 135 140 145 150 155 160 165

10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190

0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300 320 340 360

Color the number in each colored rectangle. Then draw an arrow that color pointing to the number on the number line below. Some of these fractions have two names.

Color $3\frac{1}{2}$ (mixed number)   Color 4 (whole number)   Color $1\frac{5}{6}$ (mixed number)   Color $\frac{4}{6}$ (fraction)   Color $1\frac{5}{6}$ (mixed number)   Color 5 (whole number)   Color $2\frac{3}{6}$ (mixed number)

(number line 0 to 5 divided into sixths)

See how this number line has fractions divided into sixths. Why?

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Color the shape on the RIGHT so it matches the shape on the LEFT. Then write each equivalent fractions number sentence.
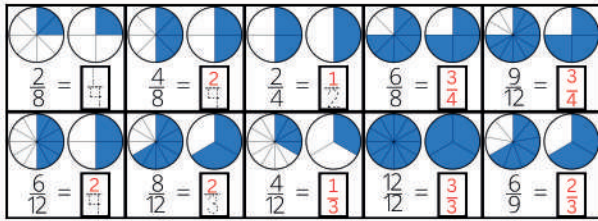
$\frac{2}{8} = \boxed{\frac{1}{4}}$ $\frac{4}{8} = \frac{2}{\boxed{4}}$ $\frac{2}{4} = \frac{1}{\boxed{2}}$ $\frac{6}{8} = \frac{3}{\boxed{4}}$ $\frac{9}{12} = \frac{3}{\boxed{4}}$

$\frac{6}{12} = \frac{2}{\boxed{4}}$ $\frac{8}{12} = \frac{2}{\boxed{3}}$ $\frac{4}{12} = \frac{1}{\boxed{3}}$ $\frac{12}{12} = \frac{3}{\boxed{3}}$ $\frac{6}{9} = \frac{2}{\boxed{3}}$

Add the fractions to find the SUM. Color the sections of the empty circle.

$\frac{1}{2} + \frac{1}{2} = \frac{2}{2} = 1$ $\frac{2}{3} + \frac{1}{3} = \frac{3}{3} = 1$ $\frac{2}{6} + \frac{4}{6} = \frac{6}{6} = 1$

Find the missing fraction and color the sections of the empty circle.

$\frac{2}{5} + \boxed{\frac{3}{5}} = \frac{5}{5} = 1$ $\frac{1}{4} + \boxed{\frac{3}{4}} = \frac{4}{4} = 1$ $\frac{4}{7} + \boxed{\frac{3}{7}} = \frac{7}{7} = 1$

Each block has 100 squares. Fill in the blanks and color squares to show each percentage.

$55\% = \frac{\boxed{55}}{100}$ $\boxed{90}\% = \frac{90}{100}$ $44\% = \frac{44}{100}$

$\boxed{20}\% = \frac{20}{100}$ $32\% = \frac{32}{100}$ $\boxed{89}\% = \frac{89}{100}$

$\boxed{84}\% = \frac{84}{100}$ $77\% = \frac{77}{100}$ $27\% = \frac{27}{100}$

$15\% = \frac{15}{100}$ $\boxed{68}\% = \frac{68}{100}$ $38\% = \frac{38}{100}$

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Figure out the SCALE of each number line, then fill in the missing numbers.

200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600

100 150 200 250 300 350 400 450 500 550 600 650 700 750 800
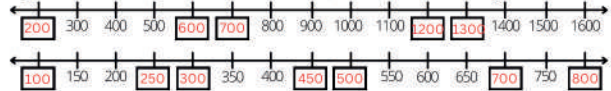
Each of the following numbers will be used once to answer a question below. Cross the number out after you use it.

955	742	555	399	744
300	282	110	803	1001

1. This number has the same number of ones, tens and hundreds. __555__
2. This number is the least. __110__
3. This number has three ONES. __803__
4. This number is one less than four hundred. __399__
5. This number is the most. __1001__
6. All of the digits in this number are EVEN. __282__
7. This number has zero tens and zero ones. __300__
8. This number has nine HUNDREDS. __955__
9. This number has the same number of tens and ones, but not hundreds. __744__
10. This number has twice as many TENS as ONES. __742__

Find the two numbers you are comparing on the number line. The number FARTHEST to the right is the LARGEST. Read each number sentence out loud.

141 > 114   103 < 130   119 < 120   147 > 144
105 < 150   121 > 112   109 < 120   138 = 138

1981 > 1891   1619 < 1916   2001 > 1999   2085 > 1852
1763 < 1673   1704 = 1704   1780 < 1870   2080 < 2090

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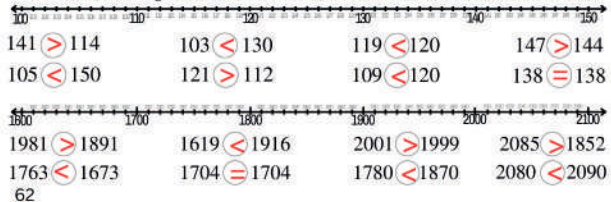
Convert these length units.
18 ft = __6__ yd
5 m = __5000__ mm
200 mm = __20__ cm
1 mi = __5280__ ft
17 feet = __5__ yd __2__ ft

Convert these capacity units.
10 qt = __2__ gal __4__ pt
2 c = __16__ oz
18 c = __1__ gal __2__ c
4 oz = __8__ Tbsp
2 gal = __8__ qt

Fill in each square with factors such that the product of each set of factors, horizontally and vertically, are correct.

3	6	18
4	9	36
12	54	

3	8	24
10	3	30
30	24	

3	3	9
7	11	77
21	33	

3	12	36
5	3	15
15	36	
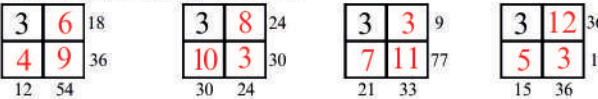
Divide each set into equal halves by drawing lines around groups. Split any leftover in HALF between the two groups. How many are in each group?

$3 \div 2 = 1 \frac{1}{2}$ $5 \div 2 = 2 \frac{1}{2}$ $4 \div 2 = 2$
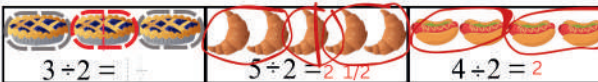
Divide each set into THIRDS by drawing lines around equal groups. Split any leftover equally between the THREE groups. How many are in each group?

$10 \div 3 = 3 \frac{1}{3}$ $9 \div 3 = 3$ $7 \div 3 = 2 \frac{1}{3}$
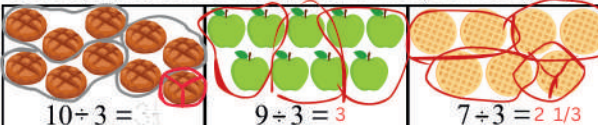
Divide each set into FOUR equal groups. Split any leftover items equally between the FOUR groups. How many are in each group?

$13 \div 4 = 3 \frac{1}{4}$ $5 \div 4 = 1 \frac{1}{4}$ $9 \div 4 = 2 \frac{1}{4}$

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2 + 3 = 5   200 + 300 = 500   2000 + 3000 = 5000
20 + 30 = 50

Find the sums.

Adding 40 is the same as adding 4 in the tens place.
+ 40 = 1283

Adding 2000 is the same as adding 2 in the thousands place.
+ 2000 = 3136
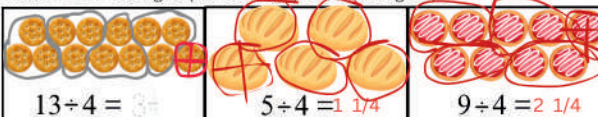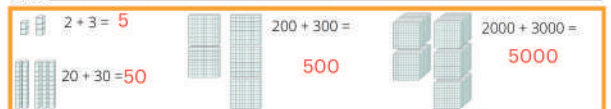
7241 + 400 = __7641__   add 4 in the hundreds place
1325 + 3 = __1328__   add 3 in the ones place
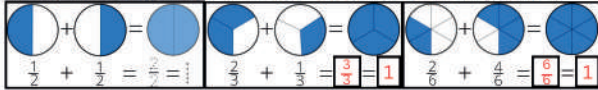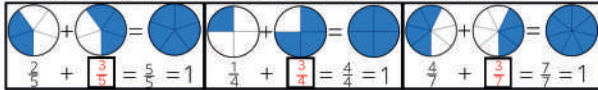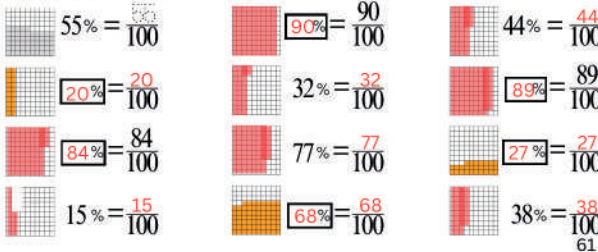8134 + 20 = __8154__   add 2 in the tens place
2768 + 5000 = __7768__   add 5 in the thousands place
4092 + 400 = __4492__   add 4 in the hundreds place
3610 + 1000 = __4610__   add 1 in the thousands place
5507 + 300 = __5807__   add 3 in the hundreds place

Find the products.
3 x 9 = __27__
3 x 6 = __18__
3 x 8 = __24__
3 x 5 = __15__
3 x 7 = __21__
3 x 3 = __9__
3 x 11 = __33__
3 x 10 = __30__
3 x 4 = __12__   four, three times equals three, four times
3 x 12 = __36__
3 x 2 = __6__
3 x 1 = __3__

4 x 6 = __24__
4 x 12 = __48__
4 x 1 = __4__
4 x 5 = __20__
4 x 11 = __44__
4 x 4 = __16__
4 x 7 = __28__
4 x 1 = __4__
4 x 3 = __12__
4 x 8 = __32__
4 x 9 = __36__
4 x 10 = __40__

Find the quotients.
12 ÷ 4 = __3__
21 ÷ 3 = __7__
27 ÷ 3 = __9__
36 ÷ 4 = __12__
12 ÷ 3 = __4__
32 ÷ 4 = __8__
24 ÷ 4 = __6__
15 ÷ 3 = __5__
28 ÷ 4 = __7__
24 ÷ 3 = __8__
48 ÷ 4 = __12__
36 ÷ 3 = __12__

The commutative property of multiplication states that the same numbers can be multiplied in any order and the resulting PRODUCT will be the same.

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Word Form	Expanded	Standard
Eight hundred fifty-three	800+50+3	853
One thousand ninety-six	1000 + 90 + 6	1096
Two hundred eighty-seven	200 + 80 + 7	287
Nine hundred forty	900 + 40	940
One hundred nineteen	100 + 10 + 9	119
Three hundred three	300 + 3	303
Five hundred sixty-eight	500 + 60 + 8	568
Six hundred fifty-two	600 + 50 + 2	652
Four hundred forty-four	400 + 40 + 4	444
One thousand four hundred	1000 + 400	1400

Which number is the largest?
1400

Which number is the smallest?
119

Which number has all even digits?
444

Which number has zero tens and zero ones?
1400

Draw lines to match each angle with its name.

straight   obtuse   acute   right

Use these broken pieces of rulers to find the length of each item.

$1\frac{3}{4}$ in.   4cm 5mm

$1\frac{3}{16}$ in.   3 cm

Use a ruler to measure these line segments in customary and metric units.

2$\frac{7}{8}$ in.   6cm 4mm

3 in.   7cm 5mm

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Date ___

Find the sums.

$$1102 + 71 + 525 = 1698$$
$$803 + 151 + 5024 = 5978$$
$$99 + 9 + 1531 = 1639$$
$$1657 + 56 + 33 = 1746$$
$$3207 + 1712 + 2241 = 7160$$

Use the templates at the right to figure out these SUMS.

$1012 + 453 + 901 = 2366$
$514 + 3010 + 25 = 3549$
$2385 + 119 + 74 = 2578$

Use the tens and ones charts to find the differences.

$68 - 27 = 41$
$45 - 31 = 14$
$37 - 19 = 18$
$50 - 36 = 14$

$89 - 43 = 46$
$70 - 38 = 32$
$53 - 24 = 29$
$61 - 42 = 19$

Complete these Fact Family houses.

72 / 8 9
$8 \times 9 = 72$
$9 \times 8 = 72$
$72 \div 9 = 8$
$72 \div 8 = 9$

54 / 6 9
$6 \times 9 = 54$
$9 \times 6 = 54$
$54 \div 9 = 6$
$54 \div 6 = 9$

108 / 9 12
$9 \times 12 = 108$
$12 \times 9 = 108$
$108 \div 12 = 9$
$108 \div 9 = 12$

63 / 7 9
$7 \times 9 = 63$
$9 \times 7 = 63$
$63 \div 9 = 7$
$63 \div 7 = 9$

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Add the fractions to find the SUM. Color the sections of the empty circle.

$\frac{1}{2} + \frac{1}{2} = \frac{2}{2} = 1$
$\frac{3}{12} + \frac{9}{12} = \frac{12}{12} = 1$
$\frac{1}{4} + \frac{3}{4} = \frac{4}{4} = 1$

$\frac{4}{5} + \frac{1}{5} = \frac{5}{5} = 1$
$\frac{2}{8} + \frac{6}{8} = \frac{8}{8} = 1$
$\frac{2}{3} + \frac{1}{3} = \frac{3}{3} = 1$

Find the missing fraction and color the sections of the empty circle.

$\frac{3}{5} + \frac{2}{5} = \frac{5}{5} = 1$
$\frac{2}{10} + \frac{8}{10} = \frac{10}{10} = 1$
$\frac{4}{6} + \frac{2}{6} = \frac{6}{6} = 1$

$\frac{3}{4} + \frac{1}{4} = \frac{4}{4} = 1$
$\frac{5}{9} + \frac{4}{9} = \frac{9}{9} = 1$
$\frac{5}{8} + \frac{3}{8} = \frac{8}{8} = 1$

How much money is this?

$ 6 . 76 dollars cents
$ 1 . 70 dollars cents
$ 10 . 77 dollars cents
$ 2 . 26 dollars cents
$ 2 . 56 dollars cents

$1212 + 300 = 1512$	add 3 in the hundreds place	$5010 + 6 = 5016$ add 6 in the ones place
$5375 + 3000 = 8375$ add 3 in the thousands place		$1102 + 30 = 1132$ add 3 in the tens place
$4838 + 50 = 4888$ add 5 in the tens place		$1018 + 200 = 1218$ add 2 in the hundreds place
$2128 + 500 = 2628$ add 5 in the hundreds place		$768 + 4000 = 4768$ add 4 in the thousands place
$4059 + 20 = 4079$ add 2 in the tens place		$1249 + 400 = 1849$ add 4 in the hundreds place
$6630 + 2000 = 8630$ add 2 in the thousands place		$2410 + 1000 = 3410$ add 1 in the thousands place
$3546 + 400 = 3946$ add 4 in the hundreds place		$1401 + 8 = 1409$ add 8 in the ones place

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Date ___

Write the missing numbers to complete each equation.

$513 + 124 = 637$
$202 + 173 = 375$
$345 + 523 = 868$
$431 + 561 = 992$
$120 + 244 = 364$

$720 + 224 = 944$
$315 + 103 = 418$
$353 + 123 = 476$
$258 + 411 = 669$
$537 + 341 = 878$

Tricky, tricky! We moved a TEN over.

$322 + 229 = 551$
$317 + 183 = 500$
$575 + 144 = 719$
$358 + 413 = 771$
$567 + 345 = 912$

$515 + 402 = 917$
$421 + 234 = 655$
$728 + 140 = 868$
$163 + 432 = 595$
$325 + 154 = 479$

$155 + 398 = 553$
$398 + 246 = 644$
$456 + 376 = 832$
$587 + 268 = 855$
$289 + 275 = 564$

Find the value of the base ten blocks.

2 thousands   3 hundreds   4 tens   5 ones

1 thousands   6 hundreds   5 tens   4 ones

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Plot each number on the number line, then round to the nearest TEN:

Rounding to the nearest ten? Circle the TENS place, then underline the number in the ONES place.

Four or less? Let it rest.
Five or more? Let it soar.

15 _20_   37 _40_   25 _30_
02 _10_   42 _40_   56 _60_

Four or less? Let it rest.

Round to the nearest HUNDRED:

Rounding to the nearest hundred? Circle the HUNDREDS place, then underline the number in the TENS place.

650 _700_   125 _100_   475 _500_   551 _600_
149 _100_   399 _400_   333 _300_   549 _500_
287 _300_   605 _600_   590 _600_   228 _200_

Five or more? Let the 6 soar (round up to 7).
Four or less? Let the 4 rest.
Five or more? Let the 2 soar (round UP to 3).

Round to the nearest THOUSAND:

Rounding to the nearest thousand? Circle the THOUSANDS place, then underline the number in the HUNDREDS place.

505 _1000_   382 _0_   2939 _3000_   213 _0_
2719 _3000_   998 _1000_   2530 _3000_   2812 _3000_
1182 _1000_   1550 _2000_   1344 _1000_   1827 _2000_

If there is no digit, it's a zero.
Five or more? Let the 5 soar (round UP to 1).
Five or more? Let the 7 soar (round UP to 3).
Four or less? Let the 1 rest.

Use a ruler to measure these line segments in customary and metric units.

_____ | $\frac{3}{4}$ in. | 2 cm
_____ | $2\frac{3}{4}$ in. | 7 cm
_____ | 6 in. | 15cm 2mm
_____ | 4 in. | 10cm 1mm
_____ | $3\frac{3}{4}$ in. | 9cm 5mm

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Date _____

Decompose numbers into smaller parts that are easier to add and subtract.

Example: **23 + 45 = ?**
(20 + 3) + (40 + 5) = ?
then regroup the numbers; tens together and ones together
(20 + 40) + (3 + 5) = 68
easy to add!   and presto!   easy to add!

Use mental math to find the sum of each problem.

Problem	Decompose	Rearrange	Sum
31 + 44	(30 + 1) + (40 + 4)	(30 + 40) + (1 + 4)	75
25 + 34	(20 + 5) + (30 + 4)	(20 + 30) + (5 + 4)	59
46 + 12	(40 + 6) + (10 + 2)	(40 + 10) + (6 + 2)	58
52 + 41	(50 + 2) + (40 + 1)	(50 + 40) + (2 + 1)	93
22 + 60	(20 + 2) + (60 + 0)	(20 + 60) + (2 + 0)	82
43 + 54	(40 + 3) + (50 + 4)	(40 + 50) + (3 + 4)	97
17 + 52	(10 + 7) + (50 + 2)	(10 + 50) + (7 + 2)	69
61 + 38	(60 + 1) + (30 + 8)	(60 + 30) + (1 + 8)	99
35 + 23	(30 + 5) + (20 + 3)	(30 + 20) + (5 + 3)	58
83 + 15	(80 + 3) + (10 + 5)	(80 + 10) + (3 + 5)	98

When you have too many ones, regroup them into TENS and ones.

56 + 38	(50 + 6) + (30 + 8)	(50 + 30) + (6 + 8) → 80 + 10 + 4	94
47 + 36	(40 + 7) + (30 + 6)	(40 + 30) + (7 + 6) → 70 + 10 + 3	83
35 + 29	(30 + 5) + (20 + 9)	(30 + 20) + (5 + 9) → 50 + 10 + 4	64

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Write the missing numbers to complete each equation.

```
 412      214      331      915      100
+364     +104     +323     +060     +243
 776      318      654      975      343

 312      114      323      301      217
+312     +102     +023     +311     +320
 624      216      346      612      537

  11       11       11       11       11
 343      115      367      389      179
+397     +186     +166     +238     +374
 740      301      533      627      553
```

Each animal represents a missing number. What number does each animal represent?

🐕 + 🦁 + 🐕 + 🐕 + 🦁 = 30
🦁 x 🐢 = 30
🐕 + 🐢 + 🦁 + 🐘 = 34
🐘 + 🦁 + 🐢 + 🦈 = 24
🦊 x 🐘 = 27
🦊 + 🐕 + 🦁 + 🐘 + 🐢 + 🦈 = 39

🦊 = 3
🐢 = 5
🐘 = 9
🦈 = 4
🦁 = 6

Could we have used different animal to represent each number? Let's use LETTERS to represent numbers. What number does each letter represent?

X + X + X = 12
X + Z = 7
Z + X + Y = 12
X + X + Z + Y + Y = 21

14 − X = 10
28 − Z = 25
Y + 11 = 16
X + 5 = 9

X = 4
Y = 5
Z = 3

Page 72

Date _____

You are a library volunteer and they need your help to organize the children's section. You counted the number of books they have in each category.

picture books	117
chapter books	248
early readers	88
board books	35
biographies	27
nonfiction	175

How many more board books are there than biographies?
27 + 8 = 35
part   part   whole
part: 27   35: number of board books
number of biographies

How many fewer board books does the library have than early readers?
53 + 35 = 88
part   part   whole
88: number of early readers
part: 35 number of board books

We want to shelve the biographies and nonfiction books together. How many are there altogether?
27 + 175 = 202
part   part   whole
part: 27 number of biographies
175: number of nonfiction
whole: 202

Three boxes, each with 12 picture books were delivered. How many picture books do we have now?
117 + 36 = 153
part   part   whole
whole: 153   part: 117 number of picture books
part: 36 new picture books

How many books does our children's section contain altogether (include the new picture books). Draw a picture and write a number sentence.

726

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X represents the missing addends. What does x represent?

$10 - X = 3$ X = _7_ $X + 3 = 7$ X = _4_

$5 + X = 7$ X = _2_ $10 - X = 4$ X = _6_

$9 - X = 5$ X = _4_ $X + 8 = 10$ X = _2_

The clocks in the second column show the current time. Draw hands on the clocks in the other columns to show quarter before the current time, then quarter after and half past. Remember that the MINUTE hand moves around the entire circle while the HOUR hand just moves across it's HOME.

Quarter Before	Current Time	Quarter After	Half Past
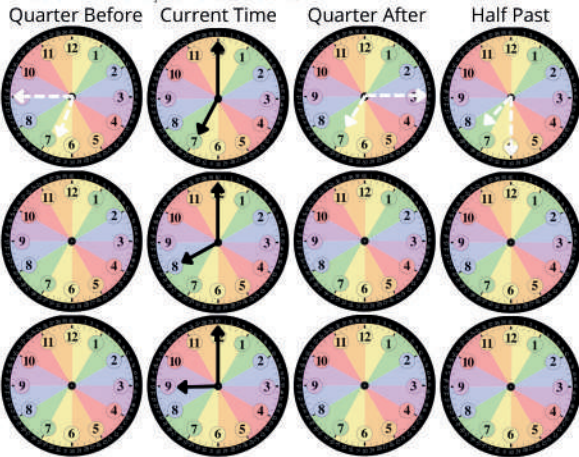
What comes next?

450, 460, 470, _480_, _490_, _500_, _510_, _520_, _530_, _540_

112, 109, 106, _103_, _100_, _97_, _94_, _91_, _88_, _85_

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Page 74

Divide these oranges into 2 groups.
How many oranges are in each group? What is $\frac{1}{2}$ of 14?   7

Divide these pomegranates into 3 groups.
How many pomegranates are in each group? What is $\frac{1}{3}$ of 6?   2

Divide these strawberries into 7 groups.
What is $\frac{1}{7}$ of 42?   6

Divide these dots into 3 groups.
What is $\frac{1}{3}$ of 24?   8

Finish the pattern:

380, 385, 390, _395_, _400_, _405_, _410_, _415_, _420_

393, 396, 399, _402_, _405_, _408_, _411_, _414_, _417_

Identify and label all of the parts, then complete the number sentences.

8	8	8	8
$8 = 6 + 2$	$8 = 4 + 4$	$8 = 3 + 5$	$8 = 1 + 7$
$8 = 2 + 6$	$8 = 4 + 4$	$8 = 5 + 3$	$8 = 7 + 1$

9	9	9	9
$9 = 2 + 7$	$9 = 3 + 6$	$9 = 4 + 5$	$9 = 1 + 8$
$9 = 7 + 2$	$9 = 6 + 3$	$9 = 5 + 4$	$9 = 8 + 1$

What is the Commutative Property of Addition? _____

Changing the order of addends does not change the sum.

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Divide these marbles into 4 groups.
Color $\frac{1}{4}$ of the marbles yellow and $\frac{3}{4}$ of the marbles red.
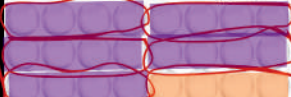
Divide these marbles into 3 groups.
Color $\frac{1}{3}$ green and $\frac{2}{3}$ blue.

Divide these marbles into 6 groups.
Color $\frac{2}{6}$ red and $\frac{3}{6}$ blue. Leave the rest white. How many are white?   6

Divide these marbles into 6 groups.
Color $\frac{5}{6}$ purple and $\frac{1}{6}$ orange

Use your FRACTION CIRCLES to compare these fractions by drawing the correct comparison symbol (<, >, =) between them.

$\frac{1}{2}$ < $\frac{3}{4}$ $\frac{2}{8}$ = $\frac{1}{4}$ $\frac{2}{7}$ < $\frac{2}{3}$

$\frac{3}{6}$ = $\frac{4}{8}$ $\frac{5}{6}$ > $\frac{5}{8}$ $\frac{4}{6}$ = $\frac{2}{3}$

Complete these Fact Family houses.

40	45	35	60
5 8	9 5	7 5	5 12
$8 \times 5 = 40$	$9 \times 5 = 45$	$7 \times 5 = 35$	$5 \times 12 = 60$
$5 \times 8 = 40$	$5 \times 9 = 45$	$5 \times 7 = 35$	$12 \times 5 = 60$
$40 \div 5 = 8$	$45 \div 9 = 5$	$35 \div 5 = 7$	$60 \div 12 = 5$
$40 \div 8 = 5$	$45 \div 5 = 9$	$35 \div 7 = 5$	$60 \div 5 = 12$

75

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Division:

$\frac{8}{4} = 2$ $8 \div 4 = 2$ $4\overline{)8}\,^2$ $\overset{quotient}{divisor\overline{)dividend}}$

Truths:
Division by ZERO is ILLEGAL.
0/0 is INDETERMINATE.
Division by ONE is ITSELF.
Multiplication by one is itself.

Use circles to group the items, then complete the equations.

$\frac{24}{3} = 8$ $24 \div 3 = 8$ $3\overline{)24}\,^8$ What is 1/3 of 24?

$\frac{25}{5} = 5$ $25 \div 5 = 5$ $5\overline{)25}\,^5$ What is 1/5 of 25?

$\frac{12}{3} = 4$ $12 \div 3 = 4$ $3\overline{)12}\,^4$ What is 1/3 of 12?

Divide the marbles into SIX equal groups.

What is 1/6 of 18? 3	What is 4/6 of 18? 12
What is 2/6 of 18? 6	What is 5/6 of 18? 15
What is 3/6 of 18? 9	What is 6/6 of 18? 18

Divide the cubes into SIX equal groups.
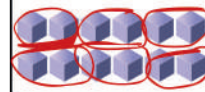
What is 1/6 of 12? 2	What is 4/6 of 12? 8
What is 2/6 of 12? 4	What is 5/6 of 12? 10
What is 3/6 of 12? 6	What is 6/6 of 12? 12

Divide the matchsticks into SIX equal groups.

What is 1/6 of 24? 4	What is 4/6 of 24? 16
What is 2/6 of 24? 8	What is 5/6 of 24? 20
What is 3/6 of 24? 12	What is 6/6 of 24? 24

76

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Draw lines to match each fraction to its meaning.

0 — $\frac{4}{2}$
1 — $\frac{1}{0}$
indeterminate — $\frac{1}{1}$
undefined — $\frac{0}{0}$
2 — $\frac{0}{1}$

Put these numbers in order from smallest to largest.

| 512 | 521 | 502 | 215 | 520 |

215 (smallest) 502 512 520 521 (largest)

| 697 | 796 | 976 | 679 | 967 |

679 (smallest) 697 796 967 976 (largest)

Find the value of the base ten blocks.

2 (thousands) 6 (hundreds) 6 (tens) 9 (ones)

1 (thousands) 9 (hundreds) 5 (tens) 4 (ones)

3 (thousands) 0 (hundreds) 6 (tens) 8 (ones)

2 (thousands) 5 (hundreds) 1 (tens) 0 (ones)

77

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Exponents:

$2^0 = 1$

$3^0 = 1$

$4^0 = 1$

$5^0 = 1$

$2^1 = 2$

$3^1 = 3$

$4^1 = 4$

$5^1 = 697$

$2^2 = 2 \times 2 = 4$

$3^2 = 3 \times 3 = 9$

$4^2 = 4 \times 4 = 16$

$5^2 = 5 \times 5 = 25$

$2^3 = 2 \times 2 \times 2 = 8$

$3^3 = 3 \times 3 \times 3 = 27$

$4^3 = 4 \times 4 \times 4 = 64$

$5^3 = 5 \times 5 \times 5 = 125$

$2^4 = 2 \times 2 \times 2 \times 2 = 16$

$3^4 = 3 \times 3 \times 3 \times 3 = 81$

$4^4 = 4 \times 4 \times 4 \times 4 = 256$

$5^4 = 5 \times 5 \times 5 \times 5 = 625$

$2^5 = 2 \times 2 \times 2 \times 2 \times 2 = 32$

$3^5 = 3 \times 3 \times 3 \times 3 \times 3 = 243$

$4^5 = 4 \times 4 \times 4 \times 4 \times 4 = 1024$

$5^5 = 5 \times 5 \times 5 \times 5 \times 5 = 3125$

Multiply the number by each of the numbers in the center circle. Write the products in the outer circle.

5x circle: 60 5 10 15 20 25 30 35 40 45 50 55

9x circle: 108 9 18 27 36 45 54 63 72 81 90 99

8x circle: 96 8 16 24 32 40 48 56 64 72 80 88

78

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| 2 less | 2 more | | 20 less | 20 more | | 200 less | 200 more |

86, 87, 89

114, 116, 118

700, 702, 704

126, 145, 165

350, 352, 354

862, 864, 866

197, 397, 597

399, 401, 403

608, 610, 612

Color the coins needed to buy each item.

$3.48

$3.01

Find the missing member of each FACT FAMILY.

5, 6 → (top missing)
25 → 5, 5
35 → 5, 7
20 → 5, 4
40 → 5, 8

56 → 8, 7
60 → 5, 12
72 → 8, 9
45 → 5, 9
48 → 8, 6

79

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Find the positive square roots.

$\sqrt{16} = 4$

$\sqrt{81} = 9$

$\sqrt{36} = 6$

$\sqrt{64} = 8$

$\sqrt{25} = 5$

$\sqrt{1} = 1$

$\sqrt{4} = 2$

$\sqrt{49} = 7$

Find the roots.

$\sqrt[3]{64} = 4$

$\sqrt[3]{8} = 2$

$\sqrt[3]{125} = 5$

$\sqrt[3]{27} = 3$

Use a calculator to find the following exponential numbers and positive roots.

$2^5 = 32$ $5^3 = 125$ $\sqrt{81} = 9$ $\sqrt[3]{216} = 6$

$8^3 = 512$ $7^3 = 343$ $\sqrt[4]{16} = 2$ $\sqrt[5]{32} = 2$

$4^4 = 256$ $3^4 = 81$ $\sqrt[4]{256} = 4$ $\sqrt[4]{81} = 3$

$3^5 = 243$ $2^8 = 256$ $\sqrt[5]{243} = 3$ $\sqrt[3]{1} = 1$

Add the fractions to find the SUM. Color the sections of the empty circle.

$\frac{6}{7} + \frac{1}{7} = \frac{7}{7} = 1$

$\frac{4}{6} + \frac{2}{6} = \frac{6}{6} = 1$

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

Find the missing fraction and color the sections of the empty circle.

$\frac{2}{9} + \frac{7}{9} = \frac{9}{9} = 1$

$\frac{12}{12} + \frac{0}{12} = \frac{12}{12} = 1$

$\frac{6}{12} + \frac{6}{12} = \frac{12}{12} = 1$

$\frac{6}{8} + \frac{2}{8} = \frac{8}{8} = 1$

$\frac{4}{8} + \frac{4}{8} = \frac{8}{8} = 1$

$\frac{3}{6} + \frac{3}{6} = \frac{6}{6} = 1$

80

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$2^0 =$ __1__　　　　　$3^0 =$ __1__
$2^1 =$ __2__　　　　　$3^1 =$ __3__
$2^2 = 2 \times 2 =$ __4__　　　$3^2 = 3 \times 3 =$ __9__
$2^3 = 2 \times 2 \times 2 =$ __8__　　$3^3 = 3 \times 3 \times 3 =$ __27__
$2^4 = 2 \times 2 \times 2 \times 2 =$ __16__　$3^4 = 3 \times 3 \times 3 \times 3 =$ __81__
$2^5 = 2 \times 2 \times 2 \times 2 \times 2 =$ __32__　$3^5 = 3 \times 3 \times 3 \times 3 \times 3 =$ __243__

	ten thousands	thousands	hundreds	tens	ones
23 x 1 =				2	2
23 x 10 =			2	3	0
23 x 100 =		2	3	0	0
23 x 1000 =	2	3	0	0	0

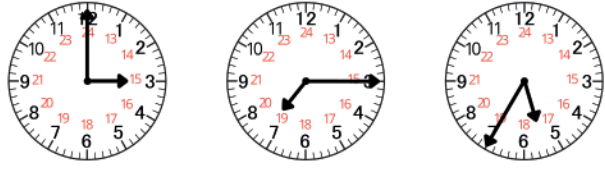|	ten thousands	thousands	hundreds	tens	ones
84 x 1 =				8	4
84 x 10 =			8	4	0
84 x 100 =		8	4	0	0
84 x 1000 =	8	4	0	0	0

Draw lines to connect each column.

4^2　　　　　　　27
2^3　　　　　　　25
5^2　　　　　　　125
10^3　　　　　　16
4^3　　　　　　　4
3^3　　　　　　　64
2^2　　　　　　　1000
5^3　　　　　　　8
3^2　　　　　　　9

81

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Date _____

Read and write each time in 12-hour and 24-hour time formats.

12-hour: __3__ P.M.　　12-hour: __8__ A.M.　　12-hour: __5:35__ P.M.
24-hour: __15:00__　　24-hour: __19:00__　　24-hour: __17:35__

(add 12 HOURS to all PM times)

Convert each time from 12-hour format to 24-hour format.
1:25 AM = __1:25__　　　　12:13 PM = __12:13__
5:05 PM = __17:05__　　　　5:18 AM = __5:18__
3:39 PM = __15:39__　　　　11:20 PM = __23:20__

Convert each time from 24-hour format to 12-hour format. Include A.M or P.M.
20:15 = __8:15 PM__　　01:12 = __1:12 AM__　　11:01 = __11:01 AM__
04:04 = __4:04 AM__　　09:55 = __9:55 AM__　　23:01 = __11:01 PM__
19:37 = __7:37 PM__　　13:30 = __1:30 PM__　　15:15 = __3:15 PM__

The girls board the train at 17:45. Their trip will take 4 hours 8 minutes. What time will they arrive (in 24-hour time)? Draw the hands on the clocks.

departure　　　arrival

time	hours	minutes
17:45		

82

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Divide these marbles into 4 groups.

Color $\frac{1}{4}$ of the marbles yellow and $\frac{3}{4}$ of the marbles red.

Divide these marbles into 6 groups.

Color $\frac{4}{6}$ orange and $\frac{2}{6}$ blue. What is $\frac{1}{6}$ of 54? __9__

Use circles to group the items, then complete the equations.

$\frac{20}{4} = 5$　　$20 \div 4 = 5$　　$4\overline{)20}$ = 5　　What is 1/4 of 20?

$\frac{36}{4} = 9$　　$36 \div 4 = 9$　　$4\overline{)36}$ = 9　　What is 1/4 of 36?

$\frac{28}{4} = 7$　　$28 \div 4 = 7$　　$4\overline{)28}$ = 7　　What is 1/4 of 28?

Fill in each square to complete each number sentence correctly.

2	X	5	=	10
X		X		X
3	X	1	=	3
=		=		=
6	X	5	=	30

2	X	4	=	8
X		X		X
3	X	3	=	9
=		=		=
6	X	12	=	72

1	X	2	=	2
X		X		X
4	X	3	=	12
=		=		=
4	X	6	=	24

83

Page 84

Date _____

Use your calendar to answer the following questions:
1. How many days are there between Valentine's Day and St. Patrick's Day? _____
2. You are going on vacation in ten days. What will be the date? _____
3. Your piano teacher gave you a new song today. She wants you to learn and memorize it for your recital May 15. How many days do you have? _____

ANSWERS WILL VARY

Draw lines to match each month to the number of days it has.

October　　　　　　　　　　　　　April
February　　　　　30 days　　　　August
July　　　　　　　　　　　　　　November
January　　　　28/29 days　　　　March
December　　　　31 days　　　　September
June　　　　　　　　　　　　　May

You started reading at 19:10. Your book took two hours and 15 minutes to finish. What time (24-hour time) did you finish?

begin　　　finish

time	hours	minutes
19:10		

add/subtract 3 in the ONES place
3 less　　3 more
__811__, 814, __817__
__223__, 226, __229__
__590__, 593, __596__

add/subtract 3 in the TENS place
30 less　　30 more
__183__, 153, __123__
__315__, 345, __375__
__609__, 639, __669__

add/subtract 3 in the HUNDREDS place
300 less　　300 more
__98__, 398, __698__
__225__, 525, __825__
__109__, 409, __709__

84

Find the sums and differences.

51 + 13 = 64	47 + 24 = 71	39 + 27 = 66	28 + 50 = 78	86 + 24 = 62
42 - 15 = 27	15 + 35 = 50	50 - 27 = 23	20 - 19 = 1	33 - 24 = 9
59 + 29 = 88	86 - 48 = 38	91 - 47 = 44	36 + 40 = 76	48 - 28 = 20

What number does each letter represent?

A + A + A = 15
A + B + C = 18
2 x B = 14
A + C + B + B = 25

16 - C = 10
25 - C = 19
A + 14 = 19
B + 9 = 16

A = 5
B = 7
C = 6

Fill in each square with factors such that the product of each set of factors, horizontally and vertically, are correct.

Grid 1: 5, 7 | 35 ; 5, 3 | 15 ; 25, 21
Grid 2: 2, 6 | 12 ; 3, 5 | 15 ; 6, 30
Grid 3: 5, 2 | 10 ; 4, 7 | 28 ; 20, 14
Grid 4: 5, 9 | 45 ; 8, 3 | 24 ; 40, 27

Grid 5: 2, 5 | 10 ; 9, 11 | 99 ; 18, 55
Grid 6: 5, 8 | 40 ; 10, 6 | 60 ; 50, 48
Grid 7: 2, 5 | 10 ; 9, 4 | 36 ; 18, 20
Grid 8: 5, 6 | 30 ; 2, 7 | 14 ; 10, 42

Grid 9: 2, 8 | 16 ; 6, 7 | 42 ; 12, 56
Grid 10: 2, 10 | 20 ; 7, 4 | 28 ; 14, 40
Grid 11: 5, 11 | 55 ; 1, 3 | 3 ; 5, 33
Grid 12: 2, 9 | 18 ; 8, 11 | 88 ; 16, 99

85

You gave the cashier $2.00 to buy juice that cost $1.33. What is your change? Color coins to count UP from $1.33 to $2.00

200 - 133 = 67

$2.00 = 200¢
$1.33 = 133¢

You gave the cashier $5.00 to buy a sandwich that was $3.49. What is your change? Color coins to count UP from $3.49 to $5.00

500 - 349 = 151

$5.00 = 500¢
$3.49 = 349¢

You gave the cashier $5.00 to buy a salad for $2.89. What is your change? Color coins to count UP from $2.89 to $5.00

500 - 289 = 211

$5.00 = 500¢
$2.89 = 289¢

What comes next?

108, 99, 90, 81, 72, 63, 54, 45, 36, 27

45, 50, 55, 60, 65, 70, 75, 80, 85, 90

16, 24, 32, 36, 40, 44, 48, 52, 56, 74

84, 77, 70, 63, 56, 49, 42, 35, 28, 21, 14

2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22

86

Convert these time periods:

1 year = 365 days
1 day = 24 hours
1 hour = 60 minutes
1 minute = 60 seconds
7 days = 1 week

90 seconds = 1 minute 30 seconds
25 hours = 1 day 1 hour
9 days = 1 week 2 days
30 minutes = 1/2 hour
12 months = 1 year

Complete the blanks in these circles.

Circle 2x: 18, 14, 16, 9, 7, 24, 8, 12, 12, 6, 5, 10, 6, 8
Circle 5x: 60, 35, 45, 12, 7, 55, 9, 11, 20, 4, 6, 30, 8, 5, 40
Circle 8x: 24, 56, 48, 3, 7, 72, 6, 12, 96, 4, 8, 40, 32, 64

Find the missing numbers to complete each equation.

411 + 233 = 644	416 + 183 = 599	253 + 101 = 354	621 + 131 = 752	562 + 4 = 568
115 + 125 = 240	213 + 387 = 600	295 + 238 = 533	168 + 157 = 325	139 + 141 = 280

Find the value of X in each equation and write it in the box below.

343 + X = 740, X = 397	X + 186 = 301, X = 115	367 + X = 533, X = 166	X + 238 = 627, X = 389	179 + X = 553, X = 374

87

Fill out this check to pay Toys R Us for a new toy. You decide the amount.

DATE _____
PAY TO THE ORDER OF _____ $ [ ]
_____ DOLLARS
LifeSkillsBank
12347659 : 00331234

You earned $50 and you received $30 for your birthday. Save some then write the rest as a deposit on the first line. Then follow the instructions below at least four times.

1. Choose an item to buy.
2. Round the price of the item to the nearest dollar.
3. Write the rounded price of the item in the expense column.
4. Subtract the rounded amount from the balance and write your new balance.
5. Repeat.

Memo	Deposit	Expense	Balance

$3.59 $9.11 $1.75 $8.55 $2.50 $4.99 $5.04 $3.19 $7.71

88

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Divide these balls into 4 groups.
What is $\frac{1}{4}$ of 16? **4**

Divide these balls into 3 groups.
What is $\frac{1}{3}$ of 18? **6**

What is $\frac{1}{2}$ of 18? **9**

What is $\frac{1}{5}$ of 10? **5**

Fill in the missing numbers then color the squares with EVEN numbers yellow.

505	504	503	502	501	500	499	498	497	496

How long is your game?

Atlanta Braves
Start 11:15 AM
End 3:30 PM

time	hours	minutes
11:15 AM		
3:30 PM		
		75 minutes

Are there more than 60 minutes? If so, TRADE 60 minutes for 1 hour.
4 hours and **15** minutes

How long is your flight?

Departure 8:10 AM
Arrival 1:30 PM

time	hours	minutes
8:10 AM		
1:30 PM		
		80 minutes

Are there more than 60 minutes? If so, TRADE 60 minutes for 1 hour.
5 hours and **20** minutes

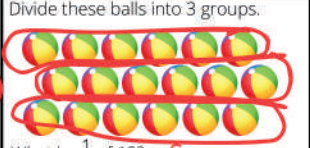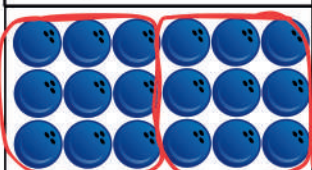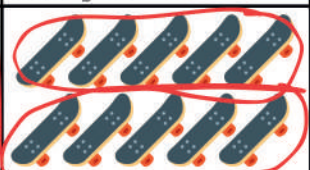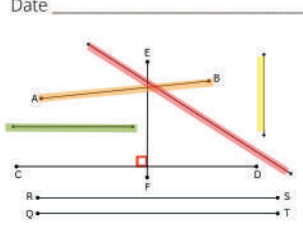Your field trip starts at 2:10 PM. It will take you 3 hours and 15 minutes to drive there. What time should you leave?

time	hours	minutes
2:10 PM		

departure   arrival

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Date _____

1. Trace line segment $\overline{AB}$ orange.
2. Trace the oblique LINE red.
3. Trace the horizontal LINE green.
4. Trace the vertical LINE yellow.
5. Name the two perpendicular line segments: **EF** and **CD**
6. Name the two parallel line segments: **RS** and **QT**

Draw:

Right Angle (include the small square)

Acute Angle

Obtuse Angle

Fill in the boxes around this circle with the correct angle measurements. Use your reference pages if you need to.

90°, 120, 60, 150, 45, 30, 180°, 0° and 360°, 210, 330, 240, 300, 270°

Draw a HORIZONTAL line and a VERTICAL line to divide this square into FOURTHS.

Use two OBLIQUE lines to divide this square into FOURTHS.

Draw 3 HORIZONTAL lines to divide this square into FOURTHS.

Draw 3 VERTICAL lines to divide this square into FOURTHS.

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Fill in each square with factors such that the product of each set of factors, horizontally and vertically, are correct.

5	8	40
3	4	12
15	32	

9	8	72
7	5	35
63	40	

11	6	66
11	9	99
121	54	

8	8	64
6	12	72
48	96	

12	3	36
12	8	96
144	24	

7	12	84
7	4	28
49	48	

6	9	54
8	6	48
48	54	

9	2	18
8	11	88
72	22	

10	2	20
5	6	30
50	12	

7	8	56
11	6	66
77	48	

8	6	48
12	3	36
96	18	

12	11	132
7	5	35
84	55	

What comes next?

8, 16, 24, **32**, **40**, **48**, **56**, **64**, **72**, **80**, **88**, **96**

7, 14, 21, **28**, **35**, **42**, **49**, **56**, **63**, **70**, **77**, **84**

Color the number in each colored rectangle. Then draw an arrow that color pointing to the number on the number line below. Some of these fractions have two names.
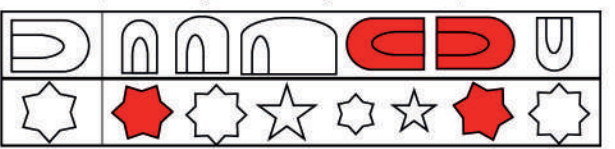
mixed number	mixed number	whole number	fraction	whole number	mixed number	mixed number
Color $3\frac{6}{8}$	Color $1\frac{4}{8}$	Color 5	Color $\frac{7}{8}$	Color 1	Color $4\frac{3}{8}$	Color $2\frac{3}{8}$

Why does this number line have fractions divided into eighths?

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Date _____
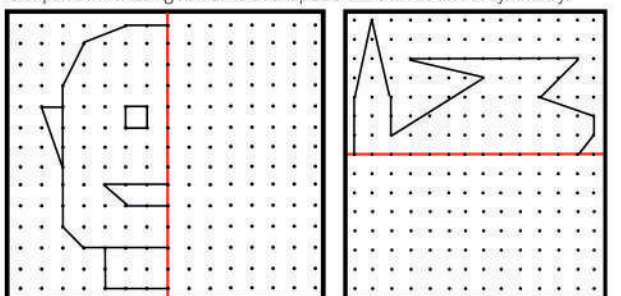
Color the shapes on the right that are congruent to the shape on the left.

Color the shapes on the right that are congruent to the shape on the left. Label each polygon with its name.

octagon   pentagon   hexagon   octagon

hexagon   pentagon

Complete the missing half of each shape across the red line of symmetry.

Each block has 100 squares. Fill in the blanks and color squares to illustrate each percentage equation.

$45\% = \dfrac{45}{100}$ $11\% = \dfrac{11}{100}$ $84\% = \dfrac{84}{100}$

$71\% = \dfrac{71}{100}$ $93\% = \dfrac{93}{100}$ $29\% = \dfrac{29}{100}$

$38\% = \dfrac{38}{100}$ $15\% = \dfrac{15}{100}$ $51\% = \dfrac{51}{100}$

$6\% = \dfrac{6}{100}$ $56\% = \dfrac{56}{100}$ $33\% = \dfrac{33}{100}$
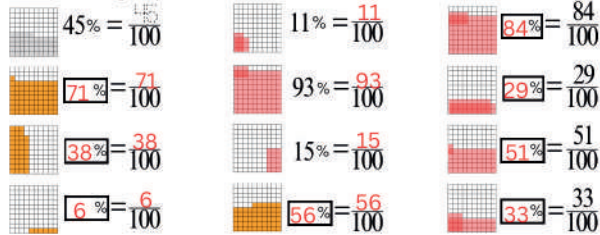
Divide each SET into the number of groups that is the DENOMINATOR of the fraction. For example, if the denominator is 2, divide the set into 2 groups.

What is $\frac{1}{2}$ of 24? Divide this set into 2 groups 12

What is $\frac{1}{3}$ of 24? Divide this set into 3 groups 8

What is $\frac{1}{4}$ of 24? 6

What is $\frac{1}{6}$ of 24? 4
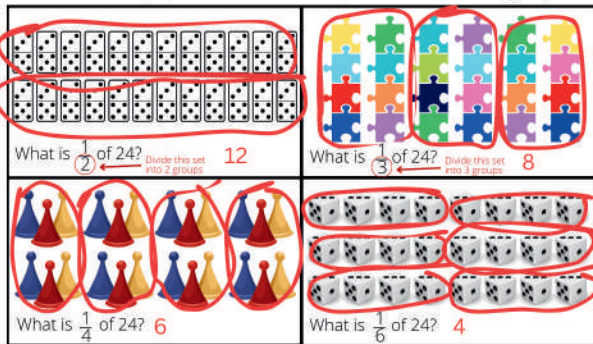
What comes next?

12, 24, 36, _48_, _60_, _72_, _84_, _96_, _108_, _120_, _132_, _144_

120, 115, 110, _105_, _100_, _95_, _90_, _85_, _80_, _75_, _70_

---

width 6
length _6_
perimeter _24_ units
area _36_ units² what? why?

width 5
length _7_
perimeter _24_ units
area _35_ units²   Is this the Commutative Property of Multiplication?

width 7
length _5_
perimeter _24_ units
area _35_ units²

width 11
length _11_
$11 \times 11 = 121$
perimeter _44_ units
area _121_ units²

width 4
length _4_
$4 \times 4 = 16$
perimeter _16_ units
area _16_ units²

width 4
length _8_
$8 \times 4 = 32$
perimeter _24_ units
area _32_ units²

width 4
length _16_
$16 \times 4 = 64$
perimeter _40_ units
area _64_ units²

Use a ruler to draw these line segments:

$\overline{AB}$ $\overline{GH}$ $\overline{MN}$ $\overline{ea}$ $\overline{fg}$ ∠OPQ
$\overline{CD}$ $\overline{IJ}$ $\overline{DU}$ $\overline{cm}$ $\overline{hi}$ ∠RST
$\overline{EF}$ $\overline{KL}$ $\overline{XY}$ $\overline{bd}$ ∠EVG

LOVE MATH

---

3 units / 4 units
$3 \times 4 = 12$
perimeter _14_ units
area _12_ units²

7 units / 3 units
$7 \times 3 = 21$
perimeter _20_ units
area _21_ units²

6 units / 4 units
$6 \times 4 = 24$
perimeter _20_ units
area _24_ units²

You gave the cashier $5.00 to buy a ball that was $3.21. What is your change? Color coins to count UP from $3.21 to $5.00

$\begin{array}{r} 500 \\ -321 \\ \hline 179 \end{array}$

$5.00 = 500¢
$3.21 = 321¢

What number does A represent in each equation?

$8 + A = 13$ $A = 5$
$5 + A = 12$ $A = 7$
$9 - A = 6$ $A = 3$

$A + 4 = 4$ $A = 0$
$18 - A = 9$ $A = 9$
$A + 5 = 16$ $A = 11$

Find the missing numbers to complete each equation.

$\begin{array}{r} 310 \\ +101 \\ \hline 411 \end{array}$ $\begin{array}{r} 187 \\ +513 \\ \hline 700 \end{array}$ $\begin{array}{r} 228 \\ +\ \ 9 \\ \hline 237 \end{array}$ $\begin{array}{r} 434 \\ +187 \\ \hline 621 \end{array}$ $\begin{array}{r} 139 \\ +\ 31 \\ \hline 170 \end{array}$

Find the value of X in each equation and write it in the box below.

$\begin{array}{r} 301 \\ +\ X \\ \hline 502 \end{array}$ X= 201 $\begin{array}{r} X \\ +113 \\ \hline 283 \end{array}$ X= 140 $\begin{array}{r} 321 \\ +\ X \\ \hline 389 \end{array}$ X= 68 $\begin{array}{r} X \\ +103 \\ \hline 227 \end{array}$ X= 124 $\begin{array}{r} 114 \\ +\ X \\ \hline 350 \end{array}$ X= 236

Can you divide this shape into two separate rectangles? Outline and color them.

perimeter _28_ units
area _24_ units²

add these

Draw the first rectangle here.
length _6_ units
width _3_ units
perimeter _18_ units
area _18_ units²

Draw the second rectangle here.
length _3_ units
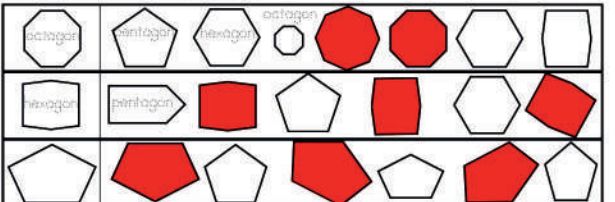width _2_ units
perimeter _10_ units
area _6_ units²

Could you have divided the shape into DIFFERENT rectangles? Would you have gotten the same answer?

perimeter _48_ units
area _105_ units²

perimeter _64_ units
area _100_ units²

perimeter _48_ units
area _86_ units²

Find the missing lengths we called X and Y.

5 units / 12 units / 11 units / 7 units
X = _5_ Y = _6_
perimeter _46_ units
area _102_ units²

14 units / 8 units / 10 units / 4 units
X = _10_ Y = _2_
perimeter _48_ units
area _120_ units²

10 units / 11 units / 14 units / 7 units
X = _3_ Y = _3_
perimeter _48_ units
area _101_ units²

Word Form	Expanded	Standard
Two hundred twelve	200+10+2	212
Five hundred one	500+1	501
Six hundred eighty	600 + 80	680
Two hundred thirty-two	200 + 30 + 2	232
One hundred ninety	100 + 90	190
Three hundred fifty-six	300+50+6	356
Five hundred twenty	500 + 20	520
Six hundred	600	600
One hundred eighty-seven	100 + 80 + 7	187
Four hundred forty-nine	400+40+9	449

Fill in the missing spots.
Which number is the largest?
680
Which number is the smallest?
190
Which numbers have all even digits?
680, 600
Which number has zero tens and zero ones?
600

Complete these Fact Family houses.
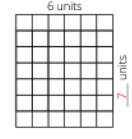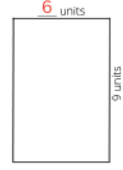
96 (12, 8)
12 x 8 = 96
8 x 12 = 96
96 ÷ 8 = 12
96 ÷ 12 = 8

56 (7, 8)
7 x 8 = 56
8 x 7 = 56
56 ÷ 8 = 7
56 ÷ 7 = 8

108 (9, 12)
9 x 12 = 108
12 x 9 = 108
108 ÷ 12 = 9
108 ÷ 9 = 12

72 (8, 9)
8 x 9 = 72
9 x 8 = 72
72 ÷ 9 = 8
72 ÷ 8 = 9

64 (8, 8)
8 x 8 = 64
8 x 8 = 64
64 ÷ 8 = 8
64 ÷ 8 = 8

84 (12, 7)
12 x 7 = 84
7 x 12 = 84
84 ÷ 7 = 12
84 ÷ 12 = 7

48 (8, 6)
8 x 6 = 48
6 x 8 = 48
48 ÷ 6 = 8
48 ÷ 8 = 6

42 (7, 6)
7 x 6 = 42
6 x 7 = 42
42 ÷ 7 = 6
42 ÷ 6 = 7

Find the squares.
2^2 = 4 6^2 = 36
3^2 = 9 7^2 = 49
4^2 = 16 8^2 = 64
5^2 = 25 9^2 = 81

Find the positive square roots.
$\sqrt{16}$ = 4 $\sqrt{25}$ = 5
$\sqrt{81}$ = 9 $\sqrt{1}$ = 1
$\sqrt{36}$ = 6 $\sqrt{4}$ = 2
$\sqrt{64}$ = 8 $\sqrt{49}$ = 7
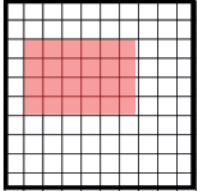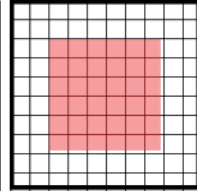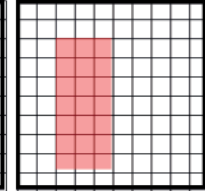
Date _____

Find the missing dimensions.

6 units / 8 units
length = 6 units
width = 8 units
perimeter = 28 units
area = 48 units^2

12 units / 4 units
length = 12 units
width = 4 units
perimeter = 32 units
area = 48 units^2

6 units / 7 units
length = 6 units
width = 7 units
perimeter = 26 units
area = 42 units^2

10 units / 7 units
length = 10 units
width = 7 units
perimeter = 34 units
area = 70 units^2

6 units / 9 units
length = 6 units
width = 9 units
perimeter = 30 units
area = 54 units^2

9 units / 9 units
length = 9 units
width = 9 units
perimeter = 36 units
area = 81 units^2

(Length and width are interchangeable due to the Commutative property of multiplication)
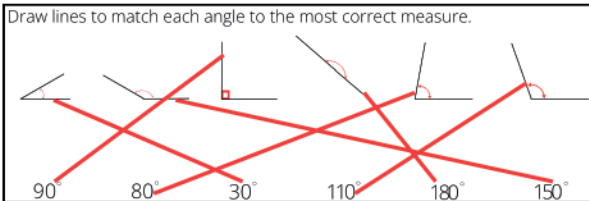
Draw rectangles with the following areas:
24 units^2 36 units^2 21 units^2

Use mental math to find the sum of each problem.

Problem	Decompose	Rearrange	Sum
43 + 25	(40 + 3)+(20 + 5)	(40 + 20)+(3 + 5)	68
36 + 13	(30 + 6)+(10 + 3)	(30 + 10)+(6 + 3)	49
24 + 34	(20 + 4) + (30 + 4)	(20 + 30) + (4 + 4)	58
45 + 42	(40 + 5) + (40 + 2)	(40 + 40) + (5 + 2)	87
51 + 28	(50 + 1) + (20 + 8)	(50 + 20) + (1 + 8)	79

Add mentally.
55 + 23 = 78
41 + 21 = 62
16 + 62 = 78
21 + 28 = 49
53 + 45 = 98
32 + 54 = 86

Draw lines to match each angle to the most correct measure.
90°   80°   30°   110°   180°   150°

How much money is this?
$ 6.26 dollars cents
$ 2.71 dollars cents
$ 11.84 dollars cents
$ 21.85 dollars cents
$ 20.31 dollars cents

Round each amount above to the nearest dollar.
$ 6 dollars $ 3 dollars $ 12 dollars $ 22 dollars $ 20 dollars
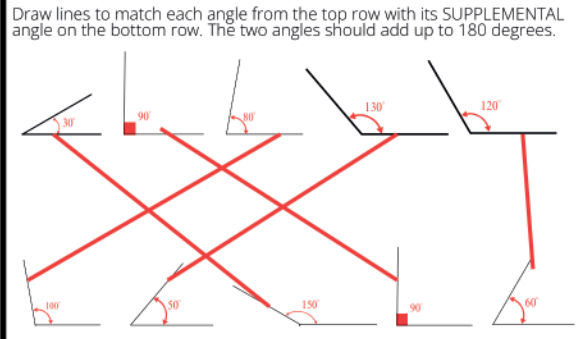
What comes next?
12, 24, 36, 48, 60, 72, 84, 96, 108, 120, 132, 144

120, 110, 100, 90, 80, 70, 60, 50, 40, 30, 20, 10

Date _____

Draw lines to match each angle from the top row with its SUPPLEMENTAL angle on the bottom row. The two angles should add up to 180 degrees.
Top row: 30°   90°   80°   130°   120°
Bottom row: 100°   50°   150°   90°   60°

Draw lines to match the terms to the correct picture, then write each term.
congruent
symmetry
supplementary angles
trapezoid
ray

Why can't you measure the length of a line? Line segments have a beginning and end, but lines do not.

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Draw lines to match terms.

indeterminate
mixed number
0
undefined
whole number
1

$1\frac{1}{2}$
$\frac{1}{0}$
$\frac{0}{1}$
$\frac{0}{0}$
$\frac{0}{1}$
$\frac{1}{2}$

Use your FRACTION CIRCLES to compare these fractions by drawing the correct comparison symbol (<, >, =) between them.

$\frac{1}{4} > \frac{1}{5}$ $\qquad$ $\frac{1}{2} = \frac{4}{8}$ $\qquad$ $\frac{3}{6} = \frac{5}{10}$ $\qquad$ $\frac{1}{3} < \frac{2}{3}$

$\frac{3}{5} < \frac{4}{5}$ $\qquad$ $\frac{6}{12} = \frac{2}{4}$ $\qquad$ $\frac{3}{4} = \frac{6}{8}$ $\qquad$ $\frac{4}{6} < \frac{4}{5}$

Quadrilaterals (shapes with 4 sides) are special! Draw lines to match columns.

rectangle — Has two pairs of parallel sides, right angles and congruent sides. Also a rectangle and a parallelogram.

square — Has two pairs parallel sides, and four right angles. Also a parallelogram.

parallelogram — A parallelogram with four congruent sides, but it does not have to have 4 right angles.

rhombus — Has 2 pairs of parallel sides, opposite each other.

trapezoid — Has one pair of parallel sides.

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Date _____

Use your place value chart to fill in the blanks in this table.

Word Form	Expanded Form	Standard Form
Four thousand, one hundred fifty-seven	4,000+100+50+7	4,157
Twenty-one thousand, one hundred three	20,000+1,000+100+3	21,103
Seventy-seven thousand, forty-two	70,000 + 7,000 + 40 + 2	77,042
Eight thousand nineteen	8,000+10+9	8,019
Thirty-five thousand, nine hundred	30,000+5,000+900	35,900
Forty thousand, one hundred fifty-seven	40,000 + 100 + 50 + 7	40,157
Four hundred eleven thousand	400,000+10,000+1,000	411,000
One million, eighty thousand five	1,000,000 + 80,000 + 5	1,080,005
Twenty-five million, twenty-five	20,000,000+5,000,000+20+5	25,000,025
Seven million, seventy-seven	7,000,000 + 70 + 7	7,000,077

Your flight leaves at 11:15. The flight will take 6 hours 30 minutes. What time will you arrive (in 24-hour time)? Draw the hands on the clocks.

departure   arrival

	time	hours	minutes
	11:15		45
	12:00	5	
	17:00		+ 45
	(17:45)		1.5 hours

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Convert each time from 12-hour format to 24-hour format.

12:15 PM = __12:15__ $\qquad$ 1:07 AM = __1:07__

7:36 AM = __7:36__ $\qquad$ 10:28 PM = __22:28__

9:01 PM = __21:01__ $\qquad$ 4:20 PM = __16:20__

(add 12 HOURS to all PM times 1:00PM or later)

Convert each time from 24-hour format to 12-hour format. Include A.M or P.M.

02:22 = __2:22 AM__ $\quad$ 11:02 = __11:02 AM__ $\quad$ 14:49 = __2:49 PM__

07:56 = __7:56 AM__ $\quad$ 19:23 = __7:23 PM__ $\quad$ 20:09 = __8:09 PM__

23:59 = __11:59 PM__ $\quad$ 17:30 = __5:30 PM__ $\quad$ 03:17 = __3:17 AM__

10:00 = __10 AM__ $\quad$ 13:31 = __1:31 PM__ $\quad$ 16:50 = __4:50 PM__

Write straight, right, acute, reflex or obtuse below each angle.

__right angle__ __acute angle__ __straight angle__ __obtuse angle__ __reflex angle__

Draw a dot inside each angle. Count the numbers of angles in each shape.

__3__ angles $\quad$ __4__ angles $\quad$ __5__ angles $\quad$ __4__ angles $\quad$ __0__ angles
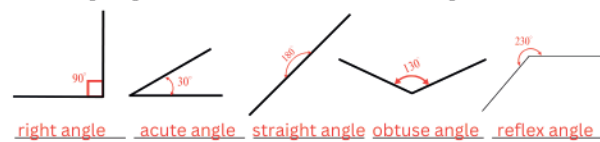
What comes next? *hint: think exponents*

1, 4, 9, 16, __25__, __36__, __49__, __64__, __81__, __100__, __121__, __144__

__96__, __88__, __80__, __72__, __64__, __56__, __48__, __40__, __32__, 24, 16, 8

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Date _____

Fill in the missing numbers to complete the number line.
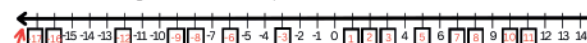
Is this a line, a line segment or a ray? __A line__

How do you know? __No endpoints__

Draw an infinity sign to the right of the line and a negative infinity sign to the left.

What do the arrows on either end of a LINE mean? __That the line continues.__

Draw:

Ray	Acute Angle	Reflex Angle	Line Segment

Obtuse Angle	Straight Angle	Line	Right Angle
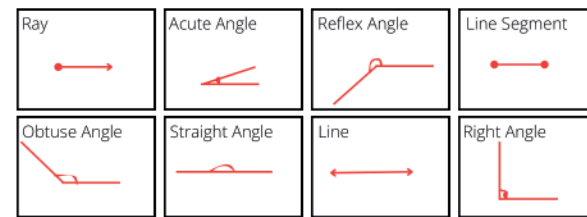
Write each number, then name them out loud to a parent.

1. 10,000 + 6,000 + 700 + 50 + 3 = __16,753__

2. 70,000 + 7 = __70,007__

3. 40,000 + 100 + 50 + 7 = __40,157__

4. 10,000 + 3,000 + 700 + 20 = __12,720__

5. 9,000,000 + 4,000 + 10 + 1 = __9,004,011__

6. 1,000,000 + 700,000 + 50,000 + 2,000 + 90 = __1,752,090__

6. 4,000,000 + 300,000 + 2,000 + 900 + 1 = __4,302,901__

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You gave the cashier $10.00 to buy blocks that cost $9.45. What is your change? Color coins to count UP from $9.45 to $10.00

(X marks on coins)

$$\begin{array}{r} 1000 \\ -945 \\ \hline 55 \end{array}$$

$10.00 = 1000¢
$9.45 = 945¢

Convert these time periods:

1 year = __365__ days

1 day = __24__ hours

1 hour = __60__ minutes

1 minute = __60__ seconds

7 days = __1__ week

30 hours = __1__ day __6__ hours

14 days = __2__ weeks

120 minutes = __2__ hours

360 seconds = __6__ minutes

6 months = __1/2__ year

The numbers in the rectangles are the PRODUCTS of the factors in the circles, at the VERTICES of the triangle. Find the missing factors.

9 — 54 — 6 — 72 — 48 — 8

4 — 32 — 20 — 8 — 40 — 5

12 — 24 — 2 — 36 — 6 — 3

8 — 24 — 56 — 3 — 21 — 7

5 — 55 — 60 — 11 — 132 — 12

5 — 45 — 9 — 15 — 27 — 3

12 — 48 — 96 — 4 — 32 — 8

7 — 84 — 12 — 42 — 72 — 6

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Date _____

Use the number lines to solve each problem.

15 + 7 = __22__

12 - 8 = __4__

4 x 3 = __12__

3 x 7 = __21__

10 - 11 = __-1__

6 - 9 = __-3__

12 - 15 = __-3__

4 - 8 = __-4__

3 - 8 = __-5__

3 - 10 = __-7__

5 - 9 = __-4__

11 - 16 = __-5__

Do you notice any patterns in the subtraction problems above? _____

Use the number line from your lesson today to solve these story problems.

You have $20.00. You want to buy a $35 game. How much money do you need to earn?

$15.00

At noon the temperature was 25 degrees. Overnight, the temperature dropped 37 degrees. What was the lowest temperature?

-12 degrees

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When two angles add to 180°, we say they are SUPPLEMENTARY. Supplement comes from Latin supplere, to complete or "supply" what is needed.

supplementary angles

Draw lines to match each angle from the top row with its SUPPLEMENTAL angle on the bottom row. The two angles should add up to 180 degrees.
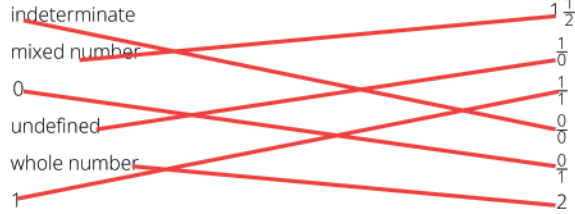
Top row: 90°, 100°, 170°, 50°, 110°
Bottom row: 130°, 70°, 80°, 10°, 90°

Use a ruler to draw the following:

1. $\overline{XZ}$
2. $\overline{YZ}$
3. $\overline{FX}$
4. $\overline{QR}$
5. $\overline{QB}$
6. $\overline{RA}$
7. $\overline{BF}$
8. $\overline{YA}$
9. $\overline{ST}$
10. $\overline{SU}$
11. $\overline{hi}$
12. $\overline{VW}$
13. $\overline{VK}$
14. $\overline{AJ}$
15. $\overline{NP}$
16. $\overline{MO}$
17. $\overline{MN}$
18. $\overline{OP}$
19. $\overline{HJ}$
20. $\overline{LH}$
21. $\overline{TW}$
22. $\overline{jk}$
23. $\overline{UK}$
24. $\overline{ru}$
25. $\overline{qt}$
26. $\overline{qr}$
27. $\overline{tu}$
28. $\overline{EF}$
29. $\overline{EC}$
30. $\overline{FD}$
31. $\overline{mn}$
32. $\overline{op}$
33. $\overline{ba}$
34. $\overline{mo}$
35. $\overline{np}$
36. $\overline{IG}$
37. $\overline{fg}$
38. $\overline{If}$
39. $\overline{Gg}$
40. $\overline{hj}$
41. $\overline{ik}$
42. $\overline{bd}$
44. $\overline{ae}$
45. $\overline{de}$

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Date _____

Use your newest number line to find the sum/difference of each problem.

5 - 12 = __-7__

7 + -9 = __-2__

8 - -3 = __11__

When two symbols are together in a number sentence:

Two positives make a positive.   + + = +

A positive and a negative make a negative. + - = -

                                              - + = -

Two negatives make a positive.   - - = +

-3 - 12 = __-15__

-5 - 4 = __-9__

9 - 14 = __-5__

1 + -4 = __-3__

8 - -8 = __0__

15 - 18 = __-3__

1 - -4 = __5__

-4 - -11 = __7__

6 + 3 = __9__

-1 - -4 = __3__

1 - 10 = __-9__

6 - -3 = __9__

Draw lines to match each quadrilateral to it's most specific name.

square   rhombus   trapezoid   rectangle   parallelogram

Fill in the missing factors or products to complete each number sentence.

5 x [2] = 10

3 x 4 = [12]

9 x [8] = 72

[5] x 3 = 15

[6] x 5 = 30

8 x 7 = [56]

2 x [12] = 24

6 x [8] = 48

4 x [8] = 32

Find the value of the letter in each number sentence.

5 x M = 20   M = __4__

B x 6 = 36   B = __6__

A x 3 = 30   A = __10__

Y x 7 = 49   Y = __7__

5 x T = 40   T = __8__

7 x S = 42   S = __6__

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Find the perimeter and the area of each shape.

Orange square (4 units × 4 units):

4 (length) x 4 (width) = 16 (area)

perimeter __12__ units

area __16__ units²

Teal rectangle (3 units × 5 units):

3 (length) x 5 (width) = 15 (area)

perimeter __16__ units

area __15__ units²

Green rectangle (5 units × 3 units):

5 (length) x 3 (width) = 15 (area)

perimeter __16__ units

area __15__ units²

See what I did there? Commutative property of multiplication

Find the missing dimensions, then divide each shape into two or three rectangles. Find the perimeter and the area of each small rectangle, then add up those areas to find the area of the WHOLE shape. All of the angles are RIGHT ANGLES.

Teal L-shape (3 units, 5 units, 2 units, 4 units, 3 units, 7 units):

7 (length) x 3 (width) = 21 (area)

3 (length) x 2 (width) = 6 (area)

perimeter __24__ units

area __27__ units²

Orange H-shape (2 units, 2 units, 2 units, 6 units, 2 units):

6 x 2 = 12

2 x 2 = 4

6 x 2 = 12

perimeter __32__ units

area __28__ units²

Green shape (7 units, 3 units, 2 units, 2 units, 3 units):

7 (length) x 3 (width) = 21 (area)

3 (length) x 2 (width) = 6 (area)

perimeter __24__ units

area __27__ units²

What comes before and after these numbers? Finish the patterns.

_96_ , _88_ , _80_ , _72_ , _64_ , _56_ , _48_ , _40_ , 32, 24, 16, _8_

144, 121, 100, _81_ , _64_ , _49_ , _36_ , _25_ , _16_ , _9_ , _4_ , _1_

_4_ , _14_ , 21, 28, 35, _42_ , _49_ , _56_ , _63_ , _70_ , _77_ , _84_

_6_ , _12_ , _18_ , _24_ , 30, 36, 42 _48_ , _54_ , _60_ , _66_ , _72_

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What comes next? Ready, set, go!

17, 18, 15, 16, 13, 14, _11_ , _12_ , _9_ , _10_

describe the rule: Add one, subtract three.

1, 2, 3, 5, 8, 13, _21_ , _34_ , _55_ , _89_ , _144_

describe the rule: Add the previous two numbers.

1, 2, 4, 7, 11, 16, _22_ , _29_ , _37_ , _46_ , _56_

describe the rule: Start with +1, add one more each time.

Create your own pattern:

____ , ____ , ____ , ____ , ____ , ____ , ____

ANSWERS WILL VARY

describe the rule:

Fill in the missing factors or products to complete each number sentence.

5 x **4** = 20

3 x **2** = 6

2 x **5** = 10

3 x **7** = 21

8 x **4** = 32

7 x **8** = 56

6 x **8** = 48

Color the COEFFICIENTS red and the VARIABLES green in these number sentences.

See? No multiplication symbol between the variable and the coefficient!

Find the value of the VARIABLE in each number sentence.

5A = 20   A = _4_

3B = 6   B = _2_

2C = 10   C = _5_

3X = 21   X = _7_

8Y = 32   Y = _4_

7Z = 56   Z = _8_

6T = 48   T = _8_

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FUNCTION MACHINE

Send each number from the IN column through the function machine. Figure out the rule for each function and complete the OUT column of the function table.

rule: 2x

IN	OUT
1	2
2	4
3	6
4	8
5	10
6	12

rule: x+3

IN	OUT
1	4
2	5
3	6
4	7
5	8
6	9

rule: 0X

IN	OUT
1	0
2	0
3	0
4	0
5	0
6	0

rule: 3x

IN	OUT
1	3
2	6
3	9
4	7
5	8
6	9

rule: x-1

IN	OUT
1	0
2	1
3	2
4	3
5	4
6	5

rule: x/2

IN	OUT
1	1/2
2	1
3	3/2
4	2
5	5/2
6	3
7	7/2
8	4
9	9/2
10	5

rule: X²

IN	OUT
1	1
2	4
3	9
4	16
5	25
6	36
7	49
8	64
9	81
10	100

rule: x-5

IN	OUT
1	-4
2	-3
3	-2
4	-1
5	0
6	1
7	2
8	3
9	4
10	5

rule: 8x

IN	OUT
1	8
2	16
3	24
4	32
5	40
6	48
7	56
8	64
9	72
10	80

Create your own rule:

IN	OUT

ANSWERS WILL VARY

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Let's draw quadrilaterals. Graph the points listed below each coordinate plane, then connect the dots in the order they are given.

Graph 1:
1.(-4, -1) 3.(4, 3)
2.(2, -1)   4.(-2, 3)

Shape name: parallelogram
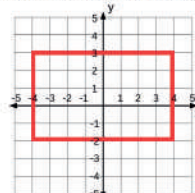
Graph 2:
1.(4, -2)   3.(-4, 2)
2.(4, 2)   4.(-4, -2)

Shape name: rectangle
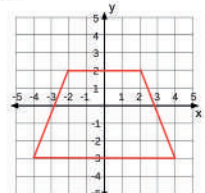
Graph 3:
1.(-4, -3) 3.(2, 2)
2.(4, -3)   4.(-2, 2)

Shape name: trapezoid

Coordinate Plane

Draw and label:
- x-axis
- y-axis
- origin
- label the quadrants 1, 2, 3, 4
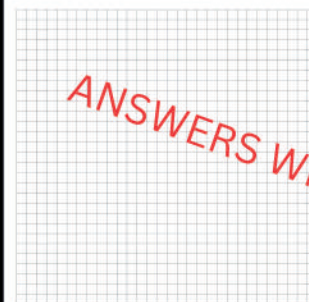
Draw a HEXAGON. Label each angle A, B, C, D, E and F. Write the ordered pair for each angle below:

A _____   D _____

B _____   E _____

C _____   F _____

ANSWERS WILL VARY

Fill in the boxes to complete this number line.

-75 -70 -65 -60 -55 -50 -45 -40 -35 -30 -25 -20 -15 -10 -5 0 5 10 15 20 25 30 35

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Divide the marbles into FOUR equal groups. Color each group a different color.

What is 1/4 of 24? 6 — What is 3/4 of 24? 18

What is 2/4 of 24? 12 — What is 4/4 of 24 24

Which fraction is HALF of the marbles?

Divide the marbles into SIX equal groups. Color each group a different color.

What is 1/6 of 24? 4 — What is 4/6 of 24? 16

What is 2/6 of 24? 8 — What is 5/6 of 24 20

What is 3/6 of 24? 12 — What is 6/6 of 24? 24

Which fraction is HALF of the marbles?

Divide the marbles into EIGHT equal groups. Color each group a different color.

What is 1/8 of 24? 3 — What is 5/8 of 24? 15

What is 2/8 of 24? 6 — What is 6/8 of 24? 18

What is 3/8 of 24? 9 — What is 7/8 of 24? 21

What is 4/8 of 24? 12 — What is 8/8 of 24? 24

Divide the marbles into TWELVE equal groups. Color each group a different color.

What is 1/12 of 24? 2 — What is 7/12 of 24? 14

What is 2/12 of 24? 4 — What is 8/12 of 24? 16

What is 3/12 of 24? 6 — What is 9/12 of 24? 18

What is 4/12 of 24? 8 — What is 10/12 of 24? 20

What is 5/12 of 24? 10 — What is 11/12 of 24? 22

What is 6/12 of 24? 12 — What is 12/12 of 24? 24

Draw least 3 more polygons to complete this pattern. You may draw REGULAR or IRREGULAR polygons. Label each polygon with its name.

rule: each polygon has one side more
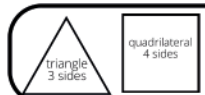
triangle 3 sides — quadrilateral 4 sides — pentagon 5 sides — ANSWERS MAY VARY

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Date _____

Each square on the map is TWO SQUARE FEET. Most animals take up more than one square, so please approximate the coordinates as best you can.

l. Name the animal at each coordinate on the opposite page:

(-10, 14) bear — (7, -6) orangutan

(-9, 21) zebra — (9, 14) parrot

(-3, 17) giraffe — (-5, 5) gorilla

(-14, 10) polar bear — (-15, -4) seal

(-17, 4) penguin — (12, -13) lion

2. Write the approximate coordinates of these animals on the zoo map:

elephant (8, 23) — panda (-14, -20) — leopard (16, -6)

answers may vary slightly

monkey (-6, -4) — tiger (3, -21) — rhino (15, 8)

3. The rhinos need shade. Draw three trees in the rhino enclosure and list their coordinates here: answers will vary

4. The Snack Shack and the Restroom are the same size. How many square feet is each building if each square is 2 ft²?

$\underline{14}_{length} \times \underline{10}_{width} = \underline{140}_{area}$ ft²

(Because each square is two square feet, after you count the length of a side, multiply it by two.)

5. Draw a path from the zebras to the restrooms. How many feet is the path? answers will vary

6. List the coordinates of all of the benches:

(-13, 18) (13, 12)

(-5, 18) (13, -2)

(-10, 11) (1, -9)

(4, 21) (-14, -13)

7. List the coordinates of all of the emergency exit signs:

(-12, -6)

(13, -1)

(-2, -18)

KEY

bench

table

EXIT emergency exit

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Snack Shack

Restroom

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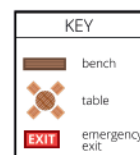
Date _____

Problem	Expanded Form	Separate	Decompose	Add products
2 x 43	2 x (40 + 3)	2 x 40 2 x 3	2 x 4 x 10 2 x 3	80 + 6 86
6 x 26	6 x (20 + 6)	6 x 20 6 x 6	6 x 2 x 10 6 x 6	120 + 36 156
3 x 59	3 x (50 + 9)	3 x 50 3 x 9	3 x 5 x 10 3 x 9	150 + 27 177
8 x 67	8 x (60 + 7)	8 x 60 8 x 7	8 x 5 x 10 8 x 7	400 + 56 456
4 x 753	4 x (700 + 50 + 3)	4 x 700 4 x 50 4 x 3	4 x 7 x 100 4 x 5 x 10 4 x 3	2800 200 + 12 3012
7 x 468	7 x (400 + 60 + 8)	7 x 400 7 x 60 7 x 8	7 x 4 x 100 7 x 6 x 10 7 x 8	2800 420 + 56 3276
5 x 274	5 x (200 + 70 + 4)	5 x 200 5 x 70 5 x 4	5 x 2 x 100 5 x 7 x 10 5 x 4	1000 350 + 20 3620
2 x 363	2 x (300 + 60 + 3)	2 x 300 2 x 60 2 x 3	2 x 3 x 100 2 x 6 x 10 2 x 3	600 120 + 6 726

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A VARIABLE represents a number.
A COEFFICIENT is a number that precedes and is multiplied by a variable in a number sentence.

coefficient variable

$5A = 20$ $A = 4$

Trace each term then write it twice more.

variable

coefficient

Find the value of the VARIABLE in each number sentence.

$3A = 21$ $A = 7$ $12 - D = 10$ $D = 2$

$X + 3 = 12$ $X = 9$ $3T = 24$ $T = 8$

$12/F = 3$ $F = 4$ $6C = 48$ $C = 8$

$15 - Z = 9$ $Z = 6$ $8X = 72$ $X = 9$

$8Y = 56$ $Y = 7$ $7S = 42$ $Y = 6$

Send each number from the IN column through the function machine. Figure out the rule for each function and complete the OUT column of the function table.

rule: 3x

IN	OUT
1	3
5	15
3	9
7	21
2	6
8	24

rule: x-5

IN	OUT
8	3
2	-3
3	-2
9	4
5	0
7	2

rule: x/2

IN	OUT
10	5
4	2
8	4
2	1
12	6
6	3

rule: x+10

IN	OUT
3	13
5	15
7	17
11	21
8	18
6	16

rule: 10x

IN	OUT
1	10
2	20
9	90
5	50
7	70
8	80

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Problem	Expanded Form	Separate	Decompose	Add products
3 x 634	3 x (600 + 30 + 4)	3 x 600 3 x 30 3 x 4	3 x 6 x 100 3 x 3 x 10 3 x 4	1800 90 + 12 1902
9 x 475	9 x (400 + 70 + 5)	9 x 400 9 x 70 9 x 5	9 x 4 x 100 9 x 7 x 10 9 x 5	3600 630 + 45 4275
2 x 697	2 x (600 + 90 + 7)	2 x 6 x 100 2 x 9 x 10 2 x 7	2 x 6 x 100 2 x 9 x 10 2 x 7	1200 180 + 14 1394
4 x 2451	4 x (2000 + 400 + 50 + 1)	4 x 2000 4 x 400 4 x 50 4 x 1	4 x 2 x 1000 4 x 4 x 100 4 x 5 x 10 4 x 1	8000 1600 200 + 4 9804
8 x 2643	8 x (2000 + 600 + 40 + 3)	8 x 2000 8 x 600 8 x 40 8 x 3	8 x 2 x 1000 8 x 6 x 100 8 x 4 x 10 8 x 3	16000 4800 320 + 24 21144
7 x 7343	7 x (7000 + 300 + 40 + 3)	7 x 7000 7 x 300 7 x 40 7 x 3	7 x 7 x 1000 7 x 3 x 100 7 x 4 x 10 7 x 3	49000 2100 280 + 21 51401
5 x 5866	5 x (5000 + 800 + 60 + 6)	5 x 5000 5 x 800 5 x 60 5 x 6	5 x 5 x 1000 5 x 8 x 100 5 x 6 x 10 5 x 6	25000 4000 300 + 30 29330

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How long is your movie?

Theater 12
Start 11:45 AM
End 1:15 PM

time	hours	minutes
11:45 AM		
1:15 PM		30 minutes

Are there more than 60 minutes? If so, TRADE 60 minutes for 1 hour.

1 hours and 30 minutes

How long is your all-day water park pass good for?

OPEN 9:15 AM CLOSE 8:45 PM

time	hours	minutes
9:15 AM		
8:45 PM		90 minutes

Are there more than 60 minutes? If so, TRADE 60 minutes for 1 hour.

12 hours and 30 minutes

Your party starts at 1:00 PM. It will take you 1 hour and 55 minutes to drive there. What time should you leave?

time	hours	minutes
11:05		
1:00 PM		

Draw lines to match each month to the number of days it has.

May, June, August, November, September, March — 30 days / 28/29 days / 31 days — April, February, October, January, July, December

How many days are between Christmas and Valentine's Day? 50

How many days are between Halloween and Christmas? 61

In each box, color the second shape so it's EQUIVALENT to the first fraction. Label each fraction.

$\frac{3}{9} = \frac{1}{3}$ $\frac{4}{6} = \frac{2}{3}$ $\frac{6}{8} = \frac{3}{4}$ $\frac{4}{5} = \frac{8}{10}$

$\frac{3}{12} = \frac{1}{4}$ $\frac{4}{10} = \frac{2}{5}$ $\frac{4}{4} = \frac{5}{5}$ $\frac{2}{12} = \frac{1}{6}$

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thousands hundreds tens ones

Multiplication Algorithm for 1-digit Multipliers:
1. Stack the numbers with the smaller number (the multiplier) on the bottom, lining up digits by place value.
2. Multiply the multiplier by the number in the ones place of the top number, writing the answer under the line. If the product of these two numbers is greater than nine, move the TEN over to the TENS PLACE.
3. Multiply the multiplier by EACH DIGIT in the top number until complete. Regroup where necessary.

Step 2
$\begin{array}{r} 4 \\ 35 \\ \times 8 \\ \hline 0 \end{array}$

5 x 8 = 40
Move the 4 TENS to the tens column.

Step 3
$\begin{array}{r} 4 \\ 35 \\ \times 8 \\ \hline 280 \end{array}$

3 x 8 = 24
Add the 4 TENS.
24 + 4 = 28

Find the products.

70 x 2 = 140
4 x 2 = 8
add products

$\begin{array}{r} 74 \\ \times 2 \\ \hline 148 \end{array}$

30 x 8 = 240
6 x 8 = 48
add products

$\begin{array}{r} 36 \\ \times 8 \\ \hline 288 \end{array}$

$\begin{array}{r} 85 \\ \times 6 \\ \hline 510 \end{array}$

$\begin{array}{r} 34 \\ \times 2 \\ \hline 68 \end{array}$ $\begin{array}{r} 86 \\ \times 7 \\ \hline 602 \end{array}$ $\begin{array}{r} 78 \\ \times 8 \\ \hline 624 \end{array}$ $\begin{array}{r} 63 \\ \times 4 \\ \hline 252 \end{array}$ $\begin{array}{r} 45 \\ \times 9 \\ \hline 405 \end{array}$

$\begin{array}{r} 31 \\ \times 3 \\ \hline 93 \end{array}$ $\begin{array}{r} 67 \\ \times 6 \\ \hline 402 \end{array}$ $\begin{array}{r} 53 \\ \times 8 \\ \hline 424 \end{array}$ $\begin{array}{r} 97 \\ \times 5 \\ \hline 485 \end{array}$ $\begin{array}{r} 46 \\ \times 3 \\ \hline 138 \end{array}$

1 foot = 12 inches   1 yard = 3 feet   1 mile = 5280 feet

Convert these US Customary units of length.

2 yards = 6 feet   1 mile = 5280 feet

12 feet = 4 yards   60 inches = 1 yard 2 feet

2 feet = 24 inches   10 feet = 3 yards 12 inches

36 inches = 1 yard   11 feet = 3 yards 2 feet

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Use your place value chart to fill in the blanks in this table.

Word Form	Expanded Form	Standard Form
Two million, one hundred twenty-four thousand, eight hundred fifty-three	2,000,000 + 100,000 + 20,000 + 4000 + 800 + 50 + 3	2,124,853
Two hundred ten million, one hundred one thousand	200,000,00 + 10,000,000 + 100,000 + 1,000	210,101,000
One million, nine thousand one	1,000,000 + 9,000 + 1	1,009,001
Seven trillion, one million	7,000,000,000,000 + 1,000,000	7,001,000,000
Three trillion, nine hundred fifty million, two hundred thirty-five	3,000,000,000,000 + 900,000,000 + 50,000,000 + 200 + 30 + 5	3,950,000,235
Twelve trillion, ten million, one thousand nine	10,000,000,000,000 + 2,000,000,000,000 + 10,000,000 + 1,000 + 9	12,010,001,009

Use your number line to find the sum/difference of each problem.

$8 - 11 = \underline{-3}$ $2 - -4 = \underline{6}$ $-1 - 11 = \underline{-12}$

$7 - 15 = \underline{-8}$ $-8 - -8 = \underline{0}$ $12 + -2 = \underline{10}$

$3 - -5 = \underline{8}$ $4 - 10 = \underline{-6}$ $-9 + -7 = \underline{-16}$

$-3 + 5 = \underline{2}$ $3 - 5 = \underline{-2}$ $9 - -7 = \underline{16}$

Use your FRACTION CIRCLES or FRACTION STRIPS to compare these fractions by drawing the correct comparison symbol (<, >, =) between them.

$\dfrac{3}{4} = \dfrac{6}{8}$ $\dfrac{3}{8} < \dfrac{5}{8}$ $\dfrac{1}{4} < \dfrac{1}{2}$

$\dfrac{1}{2} = \dfrac{4}{8}$ $\dfrac{5}{5} < \dfrac{8}{8}$ $\dfrac{1}{3} > \dfrac{1}{5}$

Multiplication Algorithm for 1-digit Multipliers:
1. Stack the numbers with the smaller number (the multiplier) on the bottom, lining up digits by place value.
2. Multiply the multiplier by the number in the ones place of the top number, writing the answer under the line. If the product of these two numbers is greater than nine, move the TEN over to the TENS PLACE.
3. Multiply the multiplier by EACH DIGIT in the top number until complete. Regroup where necessary.

Step 1:
$$375 \times 5$$
$5 \times 5 = 25$
Write the 2 TENS in the tens column.

Step 2:
$$375 \times 5 = 75$$
$7 \times 5 = 35$
Add the 2 TENS.
$35 + 2 = 37$
Write the 3 HUNDREDS in the hundreds column.

Step 3:
$$375 \times 5 = 1875$$
$3 \times 5 = 15$
Add the 3.
$15 + 3 = 18$
The one goes in the thousands place.

Find the products.

735 x 4 =
$700 \times 4 =$
$30 \times 4 =$
$5 \times 4 = $
add products
$$735 \times 4 = 2940$$

849 x 6 =
$800 \times 6 =$
$40 \times 6 =$
$9 \times 6 = $
add products
$$849 \times 6 = 5094$$

$$398 \times 5 = 1990$$

$$856 \times 7 = 5992$$ $$364 \times 8 = 2912$$ $$827 \times 6 = 4962$$ $$256 \times 4 = 1024$$ $$643 \times 3 = 1929$$

$$284 \times 9 = 2556$$ $$936 \times 5 = 4680$$ $$478 \times 4 = 1912$$ $$832 \times 8 = 6656$$ $$598 \times 7 = 4186$$

Use a ruler or a tape measure to measure the following items to the nearest 1/4 inch (use units!):

Your bed _____   A fork _____

Your table _____   A book _____

Your shoe _____   A door _____

A painting _____   A phone _____

ANSWERS WILL VARY

Find the missing dimensions, then divide each shape into two or three rectangles. Find the perimeter and the area of each small rectangle, then add up those areas to find the area of the WHOLE shape. All of the angles are RIGHT ANGLES.

Calculate the area of the orange SQUARE, then subtract the area of the small square and the small rectangle.

4 units, 6 units, 10 units, 3 units (blue L-shape)

$7 \times 4 = 28$
$6 \times 4 = 24$
perimeter $\underline{34}$ units
area $\underline{52}$ units²

9 units, 5 units, 3 units, 2 units (orange C-shape)

$9 \times 9 = 81$
$5 \times 5 = 25$
$2 \times 3 = 6$
perimeter $\underline{36}$ units
area $\underline{50}$ units²

6 units, 3 units, 5 units, 8 units, 9 units (green shape)

$9 \times 8 = 72$
$3 \times 1 = 3$
$4 \times 2 = 8$
perimeter $\underline{34}$ units
area $\underline{61}$ units²

Use circles to group the items, then complete the equations.

$\dfrac{12}{3} = 4$ $12 \div 3 = 4$ $3\overline{)12} = 4$ What is 1/3 of 12?

$\dfrac{12}{6} = 2$ $12 \div 6 = 2$ $6\overline{)12} = 2$ What is 1/6 of 12?

$\dfrac{12}{4} = 3$ $12 \div 4 = 3$ $4\overline{)12} = 3$ What is 1/4 of 12?

Find the answers:

$2^2 = 2 \times 2 = \underline{4}$ $3^2 = 3 \times 3 = \underline{9}$

$2^3 = 2 \times 2 \times 2 = \underline{8}$ $3^3 = 3 \times 3 \times 3 = \underline{27}$

$2^4 = 2 \times 2 \times 2 \times 2 = \underline{16}$ $3^4 = 3 \times 3 \times 3 \times 3 = \underline{81}$

$2^5 = 2 \times 2 \times 2 \times 2 \times 2 = \underline{32}$ $3^5 = 3 \times 3 \times 3 \times 3 \times 3 = \underline{243}$

$$3\overline{)25} = 8\ R\ 1$$
3 groups, each with 8 items, plus one leftover = 25 items.

$21 \div 7 = 3$ dividend, divisor, quotient

$7\overline{)21} = 3$ divisor, quotient, dividend

$\dfrac{21}{7} = 3$ dividend, divisor, quotient

Find the quotients. Use remainder notation.

$2\overline{)10} = 5$ $3\overline{)12} = 4$ $5\overline{)25} = 5$ $3\overline{)24} = 6$ $2\overline{)11} = 5\ R5$

$3\overline{)26} = 8\ R2$ $4\overline{)16} = 4$ $6\overline{)19} = 3\ R1$ $5\overline{)16} = 3\ R1$ $6\overline{)25} = 3\ R1$

$2\overline{)19} = 9\ R1$ $3\overline{)11} = 3\ R2$ $4\overline{)30} = 7\ R2$ $7\overline{)50} = 7\ R1$ $9\overline{)20} = 2\ R2$

Find the products.

5132 x 4 = 61
$5000 \times 4 = 20000$
$100 \times 4 = 400$
$30 \times 4 = 120$
$2 \times 4 = 8$
add products
$$5132 \times 4 = 20528$$

$$5423 \times 3 = 16269$$ $$3213 \times 3 = 9639$$

$$4751 \times 7 = 33257$$ $$3222 \times 4 = 12888$$ $$4827 \times 5 = 24135$$ $$2431 \times 2 = 4862$$

$$6844 \times 2 = 13688$$ $$8739 \times 6 = 52434$$ $$9832 \times 3 = 29496$$ $$7368 \times 5 = 36840$$

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Let's draw polygons. Graph the points listed below each coordinate plane, then connect the dots in the order they are given. From the last point, return to the first.
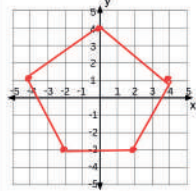
1.(2, -3)	3.(0, 4)
2.(4, 1)	4.(-4, 1)
	5.(-2, -3)

Shape name: **Pentagon**

1.(-2, -4)	4.(2, 4)
2.(2, -4)	5.(-2, 4)
3.(4, 0)	6.(-4. 0)

Shape name: **Hexagon**

1.(-4, -1)	4.(5, 1)
2.(1, -1)	5.(2, 4)
3.(3, -4)	6.(-3, 3)

Shape name: **Hexagon**

Each block has 100 squares. Color the squares to illustrate each percentage equation and fill in any missing parts of each equation.
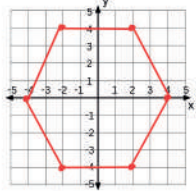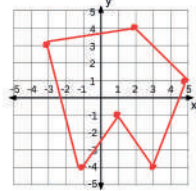
$$45\% = \frac{45}{100}$$

$$19\% = \frac{19}{100}$$

$$25\% = \frac{25}{100}$$

$$73\% = \frac{73}{100}$$

$$38\% = \frac{38}{100}$$

$$71\% = \frac{71}{100}$$
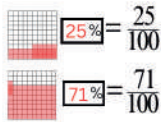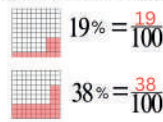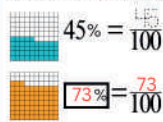
Use circles to group the items, then complete the equations.

$$\frac{16}{4} = 4 \qquad 16 \div 4 = 4 \qquad 4\overline{)16} = 4$$

What is 1/4 of 16?
What is 2/4 of 16?

$$\frac{16}{8} = 2 \qquad 16 \div 8 = 2 \qquad 8\overline{)16} = 2$$

What is 1/8 of 16?
What is 4/8 of 16?

$$\frac{16}{2} = 8 \qquad 16 \div 2 = 8 \qquad 2\overline{)16} = 8$$

What is 1/2 of 16?
What is 2/2 of 16?

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Date _____

Divide.
Multiply.
Subtract.
Bring Down.
Repeat.

(worked division examples: 5)65, 3)66, 2)36, 4)96 — No Remainder)

Find the quotients. These problems have remainders, but they follow the exact same pattern!

4)93 = 24 R1, Remainder 1
2)75 = 37 R1, Remainder 1
7)87 = 12 R3, Remainder 3
3)67 = 22 R1, Remainder 1

5)84 = 16 R4, Remainder 4
3)55 = 18 R1, Remainder 1
2)47 = 23 R1, Remainder 1
6)79 = 13 R1, Remainder 1

6)91 = 15 R1, Remainder 1
5)75 = 15 R0, Remainder 0
3)87 = 29 R0, Remainder 0
4)67 = 16 R3, Remainder 3

I'm thinking of a number between 20 and 30. The SUM of the 2 digits is 6.

What is my number? __24__   What is the PRODUCT of the digits? __8__

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Find the positive square roots.

$$\sqrt{16} = 4 \qquad \sqrt{25} = 5 \qquad \sqrt{36} = 6 \qquad \sqrt{9} = 3$$

$$\sqrt{81} = 9 \qquad \sqrt{100} = 10 \qquad \sqrt{64} = 8 \qquad \sqrt{49} = 7$$

Draw lines of symmetry in each shape. Label each shape with its name.

Trapezoid   **Rectangle**   **Rhombus**

Color all of the remaining shapes so they are equivalent to the first shape in each box. Label each fraction.
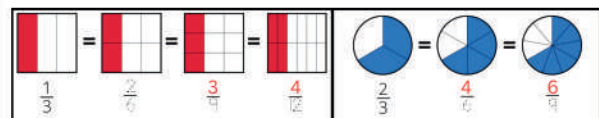
$$\frac{1}{3} = \frac{2}{6} = \frac{3}{9} = \frac{4}{12} \qquad \frac{2}{3} = \frac{4}{6} = \frac{6}{9}$$

What do all of the DENOMINATORS above have in common?

$$\frac{1}{4} = \frac{2}{8} = \frac{3}{12} \qquad \frac{1}{2} = \frac{2}{4} = \frac{3}{6} = \frac{4}{8}$$
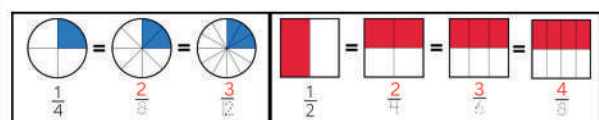
What do all of the DENOMINATORS above have in common?

Use your number line to find the sum/difference of each problem.

-7 - 4 = __-11__   1 - 2 = __-1__   4 + -5 = __-1__

5 - -7 = __12__   4 - -5 = __9__   3 - 10 = __-7__

10 + -2 = __8__   -4 + 5 = __1__   3 - 5 = __-2__

-2 + -7 = __-9__   8 - 13 = __-5__   -2 - -2 = __0__

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Date _____

Find the factors of each number. List them from the least to the greatest. Circle each of the prime numbers.

18: __1__ , __2__ , __3__ , __6__ , __9__ , __18__

(11): __1__ , __11__

(5): __1__ , __5__

4: __1__ , __2__ , __4__

20: __1__ , __2__ , __4__ , __5__ , __10__ , __20__

9: __1__ , __3__ , __9__

10: __1__ , __2__ , __5__ , __10__

6: __1__ , __2__ , __3__ , __6__

Complete these Venn Diagrams.

Factors of 24 | Factors of 18: 24, 8, 12, 4 | 1, 2, 3, 6 | 18, 9, 6

Factors of 16 | Factors of 20: 8, 16 | 1, 2, 4 | 5, 10, 20
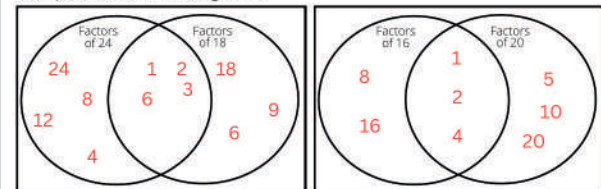
Find the quotients. Some have remainders and some don't.

3)87 = 29 R0, Remainder 0
2)49 = 22 R1, Remainder 1
5)78 = 15 R3, Remainder 3
6)74 = 12 R2, Remainder 2

4)96 = 24 R0, Remainder 0
3)99 = 33 R0, Remainder 0
7)85 = 12 R1, Remainder 1
2)81 = 40 R1, Remainder 1

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Use your reference pages to fill in the missing angles (the orange ovals).
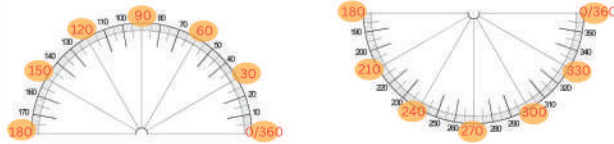
All of the angles are RIGHT ANGLES. Find the missing dimensions. Add up the perimeter then find the AREA by subtraction. Multiply the overall length times the width of the LARGE shape, then subtract out the small shapes.

3 units   3 units
2 units
5 units
8 units

2 units 1 unit 5 units
2 units
5 units
both of the missing rectangles have the same area.
1 unit

area of the large rectangle:

$8 \times 5 = 40$
length   width   area

subtract the area of the missing square:

$2 \times 2 = 4$
length   width   area

perimeter __26__ units
area __36__ units²
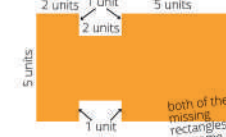
area of the large rectangle:

$9 \times 5 = 45$
length   width   area

subtract the area of TWO missing rectangles:

DOUBLE the area of one missing rectangle.

$2 \times 1 = 2$
length   width   area

perimeter __28__ units
area __41__ units²

Draw rectangles with the following areas:

81 units²   49 units²   32 units²

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Date _____

Oof! Three digit division! Just follow the same steps.

Divide.
Multiply.
Subtract.
Bring Down.
Repeat.

1 6 5 R
3) 4 9 5
- 3
1 9
- 1 8
1 5
- 1 5
Remainder 0

165
x 3
Check your division.
145
x 5
725

1 4 5 R 0
5) 7 2 5
5
2 2
- 2 0
0 2 5
- 2 5
Remainder 0

2 0 1 R 1
3) 6 0 4
- 6
0 0
- 0 0
0 0 4
- 0 3
Remainder 1

1 0 5 R 2
3) 3 1 7
- 3
0 1
- 0 0
0 1 7
- 1 5
Remainder 2

4 4 1 R 1
2) 8 8 3
- 8
0 8
- 0 8
0 0 3
- 0 2
Remainder 1

1 4 9 R 4
5) 7 4 9
- 5
2 4
- 2 0
0 4 9
- 4 5
Remainder 4

Check your division.

201
x 3
603
add the remainder 604

105
x 3
315
add the remainder 317

441
x 2
882
add the remainder 884

149
x 5
745
add the remainder 749

Round each number to the nearest 10 and add the rounded numbers.

51 + 38
50 + 40 = 90

45 + 25
50 + 30 = 80

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You gave the cashier $5.00 to buy a book that was $3.84. What is your change? Color coins to count UP from $3.84 to $5.00

500
- 384
116

$5.00 = 500¢
$3.84 = 384¢

You gave the cashier $5.00 to buy 3 tubes of paint for $1.49 each. What is your change? Color coins to count UP.

53

How much money is this?

$10.75 $16.22 $30.69 $12.01 $10.25
dollars cents dollars cents dollars cents dollars cents dollars cents

Round each amount above to the nearest dollar.

$11 $16 $31 $12 $10
dollars   dollars   dollars   dollars   dollars

List the months with 31 days. What fractional part of the year is this? _____

January, March, May, July, August, October, December. 7/12

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Date _____

Yikes! FOUR digits? Just follow the same pattern.

Divide.
Multiply.
Subtract.
Bring Down.
Repeat.

1 7 8 7 R 1
4) 7 1 4 9
- 4
3 1
- 2 8
3 4
- 3 2
2 9
- 2 8
Remainder 1

Check your division.
1787
x 4
7148
add the remainder 7149

941
x 2
1882
add the remainder 1883

0 9 4 1 R 1
2) 1 8 8 3
- 0
1 8
- 1 8
0 0 8
- 0 8
0 0 3
- 0 2
Remainder 1

0 5 1 R 2
5) 2 5 7
- 0
2 5
- 2 5
0 0 7
- 0 5
Remainder 2

0 9 0 R 1
9) 8 1 1
- 0
8 1
- 8 1
0 0 1
- 0 0
Remainder 1

0 7 3 R 3
7) 5 1 4
- 0
5 1
- 4 9
0 2 4
- 2 1
Remainder 3

0 8 4 R 3
6) 5 0 7
- 0
5 0
- 4 8
0 2 7
- 2 4
Remainder 3

2 1 7 7 R 1
3) 6 5 3 2
- 6
0 5
- 0 3
0 2 3
- 2 1
0 2 2
- 2 1
Remainder 1

0 6 2 7 R 3
8) 5 0 1 9
- 0
5 0
- 4 8
0 2 1
- 1 6
0 5 9
- 5 6
Remainder 3

2 1 2 7 R 3
4) 8 5 1 1
- 8
0 5
- 0 4
0 1 1
- 0 8
0 3 1
- 2 8
Remainder 3

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1. Trace the horizontal LINE red.
2. Trace the horizontal LINE SEGMENT orange.
3. Trace the vertical LINE green.
4. Trace the oblique LINE yellow.
5. Name the two perpendicular line segments: __EF__ and __CH__
6. Trace line segment BD purple.
7. Name the two parallel line SEGMENTS: __ST__ and __QR__

What fraction of this whole candy bar is one piece? 1/8
What fraction is half of this candy bar? 4/8

What fraction of this whole candy bar is one piece? 1/9
How many pieces is one third? 3

What fraction of this whole candy bar is one piece? 1/18
What fraction is half of this candy bar? 9/18

What fraction of this whole candy bar is one piece? 1/12
How many pieces is one fourth? 3

Draw a bar graph to show the number of children in each class:

Cake decorating: 23 children
Sign Language: 34 children
Grammar Games: 18 children

Homeschool Classes
(bar graph: Cake Decorating, Sign Language, Grammar Games; scale 0 5 10 15 20 25 30 35)

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Date _____

You are making holiday cards for your family. Each card has three trees on the front. You have 87 trees. How many cards can you make?

3 trees = 1 card
30 trees = 10 cards

trees	cards
87	

How many times can you subtract 30?   20
How many times can you subtract 3?   9

3) 8 7
  - 6
    2 7
  - 2 7
      0

Answer: 29

8) 7 5 5   →   0 9 4 R 3
Remainder 3

6) 4 1 2 8   →   0 6 8 8 R 0   Remainder 0
5) 7 8 1 2   →   1 5 6 2 R 2   Remainder 2
9) 4 3 5 7   →   0 4 8 4 R 1   Remainder 1

Show 4 ways to make 69¢.   total coins 6, 9, 15
Show 4 ways to make 58¢.   total coins 2, 1, 3, 6
Show 4 ways to make 85¢.

ANSWERS MAY VARY

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You are building toy cars. Each car needs 4 wheels. If you have a big box with 940 wheels, how many cars can you build?

4 wheels = 1 car
40 wheels = 10 cars
400 wheels = 100 cars

wheels	cars
940	

How many times can you subtract 400?   200
How many times can you subtract 40?   30
How many times can you subtract 4?   5

4) 9 4 0   →   2 3 5

3) 1 9 2 7   →   0 6 4 2 R 1   Remainder 0
2) 8 2 4 6   →   4 1 2 3 R 0   Remainder 0
5) 3 1 5 7   →   0 6 3 1 R 2   Remainder 2
3) 2 8 6 4   →   0 6 5 4 R 2   Remainder 2

Find the products.

7347 × 2 = 14694	3762 × 6 = 22572	4738 × 4 = 18952	8273 × 3 = 49652	1394 × 8 = 11152
1483 × 8 = 11864	2893 × 5 = 14465	1019 × 9 = 9171	6381 × 4 = 25524	2973 × 7 = 20811

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Date _____

Order these fractions from least to greatest. (All of the numerators are one!)

$\frac{1}{3}$ $\frac{1}{1}$ $\frac{1}{4}$ $\frac{1}{2}$ $\frac{1}{5}$ → $\frac{1}{5}$ $\frac{1}{4}$ $\frac{1}{3}$ $\frac{1}{2}$ $\frac{1}{1}$

$\frac{1}{12}$ $\frac{1}{10}$ $\frac{1}{11}$ $\frac{1}{8}$ $\frac{1}{6}$ → $\frac{1}{12}$ $\frac{1}{11}$ $\frac{1}{10}$ $\frac{1}{8}$ $\frac{1}{6}$

Write a comparison symbol between each pair of fractions. Use your fraction circles if you need to. (All of the numerators are one!)

$\frac{1}{5} > \frac{1}{6}$ $\frac{1}{2} > \frac{1}{7}$ $\frac{1}{10} < \frac{1}{9}$ $\frac{1}{7} = \frac{1}{7}$

$\frac{1}{3} < \frac{1}{1}$ $\frac{1}{4} > \frac{1}{8}$ $\frac{1}{2} > \frac{1}{11}$ $\frac{1}{5} < \frac{1}{4}$

Write a comparison symbol between each pair of fractions. Use your fraction circles if you need to. (The denominators in each pair are the same!)

$\frac{2}{5} < \frac{3}{5}$ $\frac{7}{8} > \frac{2}{8}$ $\frac{2}{4} < \frac{5}{4}$ $\frac{3}{6} < \frac{4}{6}$

$\frac{1}{3} < \frac{2}{3}$ $\frac{1}{7} < \frac{6}{7}$ $\frac{3}{12} > \frac{1}{12}$ $\frac{5}{9} > \frac{4}{9}$

Order these fractions from least to greatest. (All of the denominators are the same!) Color the fraction then write the fraction over it.

$\frac{3}{5}$ $\frac{5}{5}$ $\frac{2}{5}$ $\frac{4}{5}$

$\frac{2}{9}$ $\frac{1}{9}$ $\frac{7}{9}$ $\frac{4}{9}$ $\frac{5}{9}$

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Color pieces of each bottom shape so it matches the top shape. Then write each equivalent fractions number sentence.

$\frac{2}{3} = \frac{6}{9}$ $\frac{2}{8} = \frac{2}{8}$ $\frac{4}{6} = \frac{8}{12}$ $\frac{1}{4} = \frac{3}{12}$

Use the Butterfly Method to find the missing digits.

2x6=12   4x3=12   3x8=24   4x?=24

$\frac{2}{4} = \frac{3}{6}$ $\frac{3}{4} = \frac{8}{8}$ $\frac{8}{12} = \frac{4}{6}$ $\frac{3}{5} = \frac{6}{10}$

$\frac{4}{6} = \frac{6}{9}$ $\frac{1}{4} = \frac{2}{8}$ $\frac{2}{5} = \frac{4}{10}$ $\frac{3}{7} = \frac{6}{14}$

$297 \, R \, 0$

3) 8 9 1

-6
29
-27
0 2 1
-21
Remainder 0

$2694 \, R \, 1$

2) 5 3 8 9

-4
13
-12
0 1 8
-18
0 0 9
-0 8
Remainder 1

$0538 \, R \, 4$

7) 3 7 7 0

-0
3 7
-3 5
0 2 7
-2 1
0 6 0
-5 6
Remainder 4

Multiply the QUOTIENT and divisor from each problem above to check your division.

2 9 7 ← quotient
x 3 ← divisor
8 9 1
add the remainder 891

2 6 9 4
x 2
5 3 8 8
add the remainder 5389

5 3 8
x 7
3 7 6 6
add the remainder 3770

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List the first ten multiples of:

3, 6, 9, 12, 15, 18, 21, 24, 27, 30
4, 8, 12, 16, 20, 24, 28, 32, 36, 40
5, 10, 15, 20, 25, 30, 35, 40, 45, 50
6, 12, 18, 24, 30, 36, 42, 48, 54, 60

Name two common multiples of 3 and 4.
12 , 24

Name three common multiples of 3 and 6.
12 , 18 , 24

What is the LEAST common multiple of 3 and 6? 6
What is the LEAST common multiple of 3 and 5? 15
What is the LEAST common multiple of 5 and 6? 30
What is the LEAST common multiple of 4 and 3? 12

Find the least common denominator of each pair of fractions

$\frac{2}{3}$ and $\frac{1}{6}$ LCD 6

$\frac{3}{5}$ and $\frac{2}{4}$ LCD 20

$\frac{4}{6}$ and $\frac{5}{5}$ LCD 30

$\frac{1}{3}$ and $\frac{3}{4}$ LCD 12

Rewrite each fraction in each pair above with the LCD. Write the correct comparison symbol between them.

compare   compare

$\frac{20}{30} < \frac{30}{30}$ $\frac{4}{12} < \frac{9}{12}$

What if you have TWO chocolate bars? Each has twelve pieces. How many pieces do you have? 24

$\frac{24}{2} = 12$ $24 \div 2 = 12$ $2\overline{)24}$ 12

improper fraction   Improper fractions have a larger numerator than denominator. Write them as a whole number or mixed number instead.

If you shared these two chocolate bars between four people, how many pieces would each person get? 6 What fraction is that? 6/24

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Name That Fraction!

Draw a picture and write two equivalent fractions to represent each amount of chocolate. One of the the fractions in each box should have a denominator of twelve.

12 pieces $\frac{12}{12} = \frac{1}{1}$	9 pieces 9/12 = 3/4
6 pieces 6/12 = 1/2	4 pieces 4/24 = 1/6
3 pieces 3/24 = 1/8	2 pieces 2/24 = 1/12

Area = 5 (length) x 5 (width) = 25 units²
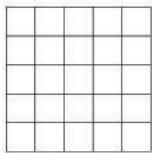
Area = 7 (length) x 5 (width) = 35 units²

Color 3 columns of squares.
What is the FRACTION of the colored area compared to the total area? 3/5

Color 5 columns of squares.
What is the FRACTION of the colored area compared to the total area? 5/7

AREA of the colored squares = 15 units²

AREA of the colored squares = 25 units²

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Fraction Addition

Draw a picture to illustrate each number sentence in each box, then find a common denominator and add the fractions.

$\frac{1}{2} + \frac{1}{4} = \frac{3}{4}$	$\frac{1}{2} + \frac{1}{2} = 1$	$\frac{1}{3} + \frac{1}{6} = 3/6$
$\frac{1}{3} + \frac{1}{3} = 2/3$	$\frac{1}{4} + \frac{1}{12} = 4/12$	$\frac{1}{2} + \frac{1}{6} = 4/6$	$\frac{1}{2} + \frac{1}{3} = 5/6$
$\frac{3}{4} + \frac{1}{4} = 1$	$\frac{2}{12} + \frac{4}{6} = 10/12$	$\frac{2}{3} + \frac{1}{4} = 11/12$	$\frac{5}{6} + \frac{1}{12} = 11/12$

Fraction Subtraction   Hey, that rhymes!

Draw a picture to illustrate each number sentence in each box, then find a common denominator and subtract the fractions.

$\frac{1}{2} - \frac{1}{4} = \frac{1}{4}$	$\frac{1}{2} - \frac{3}{12} = 3/12$	$\frac{1}{3} - \frac{1}{6} = 1/12$	$\frac{2}{3} - \frac{5}{12} = 3/12$
$\frac{1}{3} - \frac{1}{4} = 1/12$	$\frac{1}{4} - \frac{1}{12} = 2/12$	$\frac{3}{4} - \frac{3}{6} = 3/12$	$\frac{1}{2} - \frac{1}{3} = 1/6$

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List the first ten multiples of:

6, 12 18 24, 30, 36, 42, 48, 54, 60
7, 14 21, 28, 35, 42, 49, 56, 63, 70

Find the LCD:
$\frac{2}{6}$ and $\frac{5}{7}$ LCD __42__

4, 8 12 16, 20, 24, 28, 32, 36, 40
6, 12 18 24, 30, 36, 42, 48, 54, 60

$\frac{1}{4}$ and $\frac{2}{6}$ LCD __12__

3, 6 9 12, 15, 18, 21, 24, 27, 30
8, 16 24 32, 40, 48, 56, 64, 72, 80

$\frac{1}{3}$ and $\frac{3}{8}$ LCD __24__

Order these fractions from least to greatest. Draw each fraction, then label it.

$\frac{3}{8}$ $\frac{5}{8}$ $\frac{1}{8}$ $\frac{2}{8}$ $\frac{4}{8}$

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

Use your number line to find the sum/difference of each problem.

11 + -13 = __-2__   5 - -5 = __10__   -9 - -8 = __-1__
-9 + -14 = __-23__   2 - 6 = __-4__   5 - -10 = __15__
-1 - 12 = __-13__   7 - 8 = __-1__   11 - 10 = __-1__
3 - -7 = __10__   -8 + 7 = __-1__   3 - 12 = __-9__

Round each number to the nearest 10; add the rounded numbers mentally.

67 + 35
__70__ + __40__ = __110__

23 + 19
__20__ + __20__ = __40__

88 + 24
__90__ + __20__ = __110__

55 + 54
__60__ + __50__ = __110__

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Date _____

Simplify these fractions.

$\frac{6}{9} = \frac{2}{3}$ $\frac{9}{12} = \frac{3}{4}$ $\frac{4}{12} = \frac{1}{3}$ $\frac{3}{12} = \frac{1}{4}$

$\frac{2}{10} = \frac{1}{5}$ $\frac{2}{8} = \frac{1}{4}$ $\frac{4}{6} = \frac{2}{3}$ $\frac{6}{10} = \frac{3}{5}$
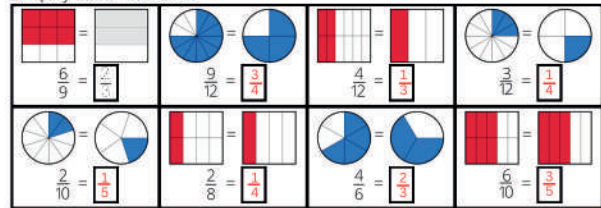
Fractions LCD 12	$\frac{3}{4}$	$\frac{2}{3}$	$\frac{1}{6}$	$\frac{1}{2}$	$\frac{4}{12}$
Equivalent Fractions with LCD	$\frac{9}{12}$	$\frac{8}{12}$	$\frac{2}{12}$	$\frac{6}{12}$	$\frac{4}{12}$
Order fractions least to greatest	$\frac{2}{12}$	$\frac{4}{12}$	$\frac{6}{12}$	$\frac{8}{12}$	$\frac{9}{12}$

Fractions LCD 20	$\frac{2}{5}$	$\frac{5}{1}$	$\frac{3}{4}$	$\frac{1}{2}$	$\frac{7}{10}$
Equivalent Fractions with LCD	$\frac{8}{20}$	$\frac{20}{20}$	$\frac{15}{20}$	$\frac{10}{20}$	$\frac{14}{20}$
Order fractions least to greatest	$\frac{8}{20}$	$\frac{10}{20}$	$\frac{14}{20}$	$\frac{15}{20}$	$\frac{20}{20}$

Add these fractions:
$\frac{2}{4} + \frac{2}{6}$ = 5/6

- Find the Lowest Common Denominator
- Convert both fractions so they have the LCD.
- Add the fractions.
- Simplify the sum.

List the first ten multiples of:
4, 8 12 16, 20, 24, 28, 32, 36, 40
6, 12 18 24, 30, 36, 42, 48, 54, 60

Find the LCD:
$\frac{2}{4}$ and $\frac{2}{6}$ LCD __24__
use this LCD

Convert both of these fractions so they have a common denominator:
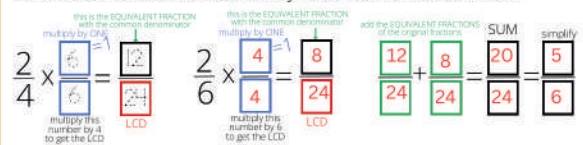
$\frac{2}{4} \times \frac{6}{6} = \frac{12}{24}$ $\frac{2}{6} \times \frac{4}{4} = \frac{8}{24}$ $\frac{12}{24} + \frac{8}{24} = \frac{20}{24} = \frac{5}{6}$

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4 x 🐼 = 20   🐼 = 5   🦊 x 3 = 9
🐼 + 🐘 = 9   🦊 = 3   8 + 🐼 = 14
🐯 x 🦊 = 6   🐵 = 6   🐼 x 9 = 45
🐯 + 🐵 + 🦊 = 8   🐯 = 2   2 x 🐆 = 4
🐵 x 🐯 = 12   🐘 = 4   🐘 + 7 = 11

Five children will share fifteen cookies. Write a number sentence and illustrate it.

15 / 5 = 3

Complete these Venn Diagrams.

Factors of 48 / Factors of 32:
3, 6, 12, 48, 24 | 1, 2, 4, 8, 16 | 32

Factors of 18 / Factors of 21:
6, 2, 18, 9 | 3, 1 | 7, 21
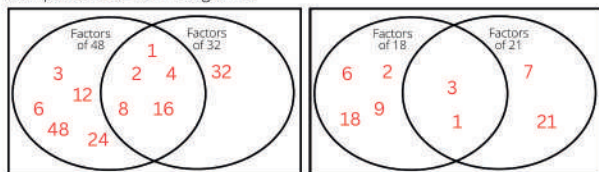
Use your number line to find the sum/difference of each problem.

3 + 5 = __8__   4 + -8 = __-4__   -2 - 6 = __-8__
3 - -5 = __8__   4 - 8 = __-4__   2 - -6 = __8__
-3 + 5 = __2__   4 + 8 = __12__   6 + -2 = __4__
3 - 5 = __-2__   -4 - -8 = __4__   -2 + -6 = __-8__

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Multiply fractions by WHOLE numbers. Always simplify!
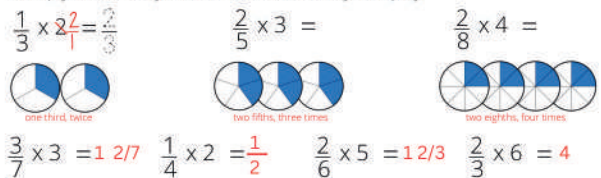
$\frac{1}{3} \times 2\frac{2}{1} = \frac{2}{3}$ $\frac{2}{5} \times 3 =$ $\frac{2}{8} \times 4 =$

one third, twice   two fifths, three times   two eighths, four times

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

Multiply fractions by fractions. Always simplify!

$\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$ $\frac{1}{2} \times \frac{1}{3} = \frac{1}{6}$ $\frac{4}{4} \times \frac{1}{2} = \frac{4}{8} = \frac{1}{2}$

one half, half of a time   one half, one third of a time   one whole, half of a time

$\frac{1}{3} \times \frac{1}{4} = \frac{1}{12}$ $\frac{1}{4} \times \frac{3}{4} = \frac{3}{16}$ $\frac{3}{5} \times \frac{3}{6} = \frac{9}{30}$ $\frac{1}{2} \times \frac{1}{4} = \frac{1}{8}$
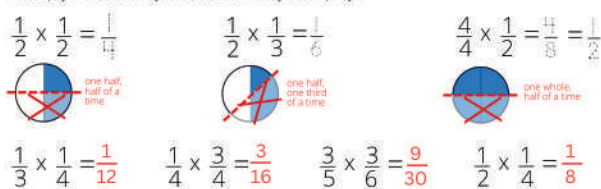
The operators are missing! Insert the correct operator (+, -, x) in each yellow circle to make the number sentence true. All answers have been simplified.

$\frac{1}{2} \times \frac{1}{3} = \frac{1}{6}$ $\frac{3}{4} - \frac{2}{5} = \frac{7}{20}$ $\frac{2}{3} \times \frac{3}{4} = \frac{1}{2}$ $\frac{2}{5} + \frac{3}{5} = 1$

$\frac{1}{3} \times \frac{1}{3} = \frac{1}{9}$ $\frac{1}{4} + \frac{2}{3} = \frac{11}{12}$ $\frac{3}{5} - \frac{1}{2} = \frac{1}{10}$ $\frac{2}{3} - \frac{1}{3} = \frac{1}{3}$

$\frac{4}{5} - \frac{2}{3} = \frac{2}{15}$ $\frac{5}{6} \times \frac{2}{5} = \frac{1}{3}$ $\frac{3}{7} + \frac{5}{7} = 1\frac{1}{7}$ $\frac{1}{2} + \frac{2}{4} = 1$

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How much change will you receive if you pay for each item with $1.00?

scissors .79¢   sharpener .43¢   ruler .71¢

21 cents   57 cents   29 cents

Fractions LCD 24	$\frac{3}{6}$	$\frac{1}{2}$	$\frac{2}{4}$	$\frac{7}{8}$	$\frac{2}{3}$
Equivalent Fractions with LCD	$\frac{12}{24}$	$\frac{12}{24}$	$\frac{12}{24}$	$\frac{21}{24}$	$\frac{16}{24}$
Order fractions least to greatest	$\frac{12}{24}$	$\frac{12}{24}$	$\frac{12}{24}$	$\frac{16}{24}$	$\frac{21}{24}$

Fractions LCD 30	$\frac{1}{5}$	$\frac{9}{10}$	$\frac{1}{3}$	$\frac{6}{15}$	$\frac{5}{6}$
Equivalent Fractions with LCD	$\frac{6}{30}$	$\frac{27}{30}$	$\frac{10}{30}$	$\frac{12}{30}$	$\frac{25}{30}$
Order fractions least to greatest	$\frac{6}{30}$	$\frac{10}{30}$	$\frac{12}{30}$	$\frac{25}{30}$	$\frac{27}{30}$

Find the quotients.

260 R1   3)781
Remainder 1

079 R4   5)399
Remainder 4

0381 R4   7)2671
Remainder 4

Check your division.

| 260 |
| x 3 |
| 780 |
add the remainder 781

| 79 |
| x 5 |
| 395 |
add the remainder 399

| 381 |
| x 7 |
| 2667 |
add the remainder 2671

145

Page 146

Date _____

Divide fractions by WHOLE numbers. Always simplify!
Never divide by a fraction, instead multiply by the reciprocal.

$\frac{1}{3} \times \frac{1}{3} = \frac{1}{9}$ how many times will 3 go into 1/3?
only 1/9 of 3 will fit inside 1/3

$\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$ how many times will 2 go into 1/2?
only 1/4 of 2 will fit inside 1/2

$\frac{4}{6} \times \frac{1}{3} = \frac{4}{18} = \frac{2}{9}$ how many times will 3 go into 4/6?
only 4/18 of 3 will fit inside 4/6

$\frac{3}{7} \div 3 = \frac{1}{7}$ $\frac{1}{4} \div 3 = \frac{1}{12}$ $\frac{2}{6} \div 3 = \frac{1}{9}$ $\frac{2}{3} \div 3 = \frac{2}{9}$

Divide fractions by fractions. Always simplify!
Never divide by a fraction, instead multiply by the reciprocal.

$\frac{1}{2} \times \frac{2}{1} = \frac{2}{2} = 1$ how many times will 1/2 go into 1/2?
once - they're the same size!

$\frac{1}{3} \times \frac{4}{1} = \frac{4}{3} = 1\frac{1}{3}$ how many times will 1/4 go into 1/3?
once AND another 1/3 of 1/4

$\frac{4}{5} \times \frac{2}{1} = \frac{8}{5} = 1\frac{3}{5}$ how many times will 1/2 fit into 4/5?
once AND another 3/5 of 4/5

$\frac{1}{3} \div \frac{1}{6} = 2$ $\frac{2}{4} \div \frac{1}{4} = 2$ $\frac{3}{4} \div \frac{1}{8} = 6$ $\frac{3}{5} \div \frac{1}{5} = 5$

One donut costs 75 cents. How much is one half dozen donuts? What is your change after you pay with a $5 bill?

6 donuts

50 cents is your change

146

Page 147

Round each number to the nearest 10 and add the rounded numbers.

35 + 86
40 + 90 = 130

19 + 33
20 + 30 = 50

27 + 55
30 + 60 = 90

51 + 68
50 + 70 = 120

Use your reference pages to fill in the missing angles (the yellow ovals).
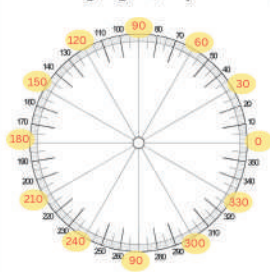
Draw:

Right Angle	Line Segment
Reflex Angle	Ray
Obtuse Angle	Line
Straight Angle	Acute Angle

Library story time starts at 10:30 AM. The clock below shows the current time. It takes 20 minutes to drive to the library. How much time do you have before you have to leave?

55 minutes

147

Page 148

Date _____
Complete this table. Leave the percent column empty for now.

Visual Fraction	Numerical Fraction	Percent	Decimal
	$\frac{1}{10}$	10%	0.1
	2/10	20%	0.2
	3/10	30%	0.3
	4/10	40%	0.4
	5/10	50%	0.5
	6/10	60%	0.6
	7/10	70%	0.7
	8/10	80%	0.8
	9/10	90%	0.9
	10/10	100%	1

Draw a line graph to show the following temperatures.

DATE	TEMP.
March 4	15°F
March 5	8°F
March 6	-6°F
March 7	12°F
March 8	-4°F
March 9	5°F
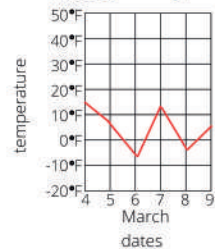
Why do we use line graphs to show temperature?
It allows us to more clearly see the patterns

Your family hatched chicks from eggs. You incubated two dozen eggs. Not all of them hatched. Eight more eggs hatched than didn't. How many chicks do you have?

We have 16 chicks

total eggs   chicks   unhatched eggs

If it takes you two and a half hours to drive to the airport and you have to be there by 7:00 am, what time do you need to leave home?

4:30 am

148

Page 149

There are three tennis balls in a small package. The medium-sized package has twice that amount. The largest package has five times as many balls as the small size.

How many tennis balls are in the medium-sized package? __6__

How many tennis balls are in the largest package? __15__

You have one gallon of water. Use a blue crayon to "fill" as many of these containers as you can before you run out of water. Use all of the water.

What fraction of the containers did you "fill"? __8/10__

What decimal is that fraction? __0.8__

You are having a pizza party with 13 friends, plus yourself. You figure each person will want to eat 4 slices.

How many slices do you need? __52__ $\frac{13}{\text{# of people}} \times \frac{4}{\text{# of slices per person}} = \frac{52}{\text{slices needed}}$

Each pizza has eight slices. How many pizzas do you need?

$\frac{56}{8} = 7$ $56 \div 8 = 7$ $8\overline{)56} \to 7$

improper fraction

Improper fractions have a larger numerator than denominator. They should be written as a whole number or a mixed number instead of as a top heavy (larger numerator) fraction. This one is a WHOLE number.

149

Page 150

Use the menu prices to add up the cost of each meal. Find each customer's change if they pay with a $10.00 bill.

$4.20 is your change

$2.81 is your change

FOOD TRUCK MENU
Hamburger $3.69
Hot dog $1.50
Pizza $2.80
French Fries $1.75
Salad $1.25
Apple Slices $1.88
Soda $1.75
Ice cream $2.79

$7.79 is your change

$$0\ 9\ 5\ 3\ R\ 1 \qquad 0\ 7\ 3\ 2\ R\ 1 \qquad 2\ 1\ 3\ 3\ R\ 0$$
$$4\overline{)3\ 8\ 1\ 3} \qquad 7\overline{)5\ 1\ 2\ 5} \qquad 3\overline{)6\ 3\ 9\ 9}$$

Remainder 1   Remainder 1   Remainder 0

Check your division. Multiply each quotient by its divisor.

| 9 5 3 |
| × 4 |
| 3 8 1 2 |

add the remainder __3813__

| 7 3 2 |
| × 7 |
| 5 1 2 4 |

add the remainder __5125__

| 2 1 3 3 |
| × 3 |
| 6 3 9 9 |

add the remainder __6399__

150

Page 151

Re-write and stack the numbers, lining up the decimal points. Find the sum.

4.3 + 9.1 = __13.4__   7.5 + 2.55 = __10.05__   1.75 + 2.3 = __4.05__

5.02 + 3.4 = __8.42__   1.43 + 2.1 = __3.53__   2.18 + 1.22 = __3.4__

1.14 + 1.16 = __2.3__   2.7 + 1.75 = __4.45__   1.6 + 1.8 = __3.4__

Fractions LCD __18__	$\frac{1}{2}$	$\frac{1}{18}$	$\frac{7}{9}$	$\frac{2}{3}$	$\frac{5}{6}$
Equivalent Fractions with LCD	$\frac{9}{18}$	$\frac{1}{18}$	$\frac{14}{18}$	$\frac{12}{18}$	$\frac{15}{18}$
Order fractions least to greatest	$\frac{1}{18}$	$\frac{9}{18}$	$\frac{12}{18}$	$\frac{14}{18}$	$\frac{15}{18}$

Fractions LCD __21__	$\frac{2}{3}$	$\frac{4}{7}$	$\frac{1}{3}$	$\frac{11}{21}$	$\frac{6}{7}$
Equivalent Fractions with LCD	$\frac{14}{21}$	$\frac{12}{21}$	$\frac{7}{21}$	$\frac{11}{21}$	$\frac{18}{21}$
Order fractions least to greatest	$\frac{7}{21}$	$\frac{11}{21}$	$\frac{12}{21}$	$\frac{14}{21}$	$\frac{18}{21}$

If you paid for each of these items with $5.00, how much change would you receive? Draw the bills and coins you would use to make that amount.

$3.79 $1.14

ANSWERS MAY CHANGE DEPENDING ON HOW THE CHANGE IS DRAWN

Use the correct comparison symbol (<, >, =).

358 - 129 **>** 74 + 57   72/9 **=** √64

√81 - 1 **<** 6 x 3   one half **<** three fourths

28/4 **=** 56/8   seconds in one minute **>** cups in one gallon

151

Page 152

Complete the percent column in the table on page 148.

Each grid has 100 squares. What percentage is each color?

	percent	fraction	percent	fraction
	30%	30/100	40%	40/100
	15%	15/100	10%	10/100
	5%	5/100		

Add all of the percentages.

☐ + ☐ + ☐ + ☐ + ☐ =

Why do the percentages of each color all add up to 100%? _____

__Because they all take part of a whole.__

Do percentages always add up to 100%? __Yes.__

Each block has 100 squares. Color the squares to illustrate each percentage equation and fill in any missing parts of each equation.

$100\% = \frac{100}{100}$ $50\% = \frac{50}{100}$ $25\% = \frac{25}{100}$

$73\% = \frac{73}{100}$ $31\% = \frac{31}{100}$ $68\% = \frac{68}{100}$

Writing Fractions:

What fractional part of this word is vowels? __1/4__

What fractional part of this word is consonants? __3/4__

What fractional part of this word is vowels? __2/5__

What fractional part of this word is consonants? __3/5__

MATH GAMES

152

Send each number from the IN column through the function machine. Figure out the rule for each function and complete the OUT column of the function table.

These two are hard. The rule has TWO steps. Think double.

rule: -4		rule: x4		rule: double plus one		rule: double minus one		rule: x3	
IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
11	7	9	36	3	7	10	19	12	36
19	15	12	48	7	15	12	23	1	3
24	20	8	32	4	9	7	13	5	15
4	0	17	68	8	17	6	11	0	0
50	46	15	60	10	21	8	15	7	21
16	12	5	20	5	11	5	9	3	9

You have seven quarters and your brother has nine quarters. How many quarters do you have altogether? Write a number sentence.

7 quarters + 9 quarters= 16 quarters

How much money is that?

4 dollars

Let's draw quadrilaterals. Graph the points listed below each coordinate plane, then connect the dots in the order they are given.

1.(0, -4)   3.(0, 4)
2.(3, 0)   4.(-3, 0)
5.(0, -4)

Shape name: rhombus

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

Shape name: quadrilateral

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

Shape name: square

153
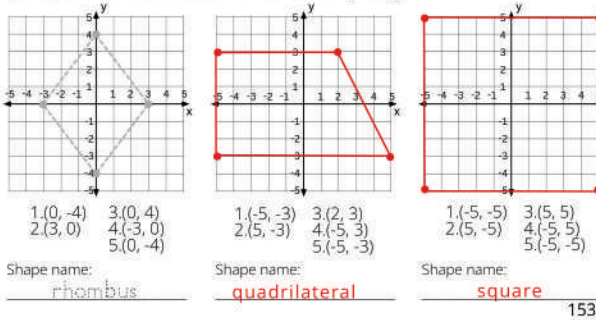
Date _____

Solve:

$2 + 9 \times 3 - 8 = \underline{21}$

$4 - 15 \div 3 + 1 = \underline{0}$

$5 \times 5 - 4 \times 4 = \underline{9}$

Order of Operations (PEMDAS):
1. **P**arentheses
2. **E**xponents
3. **M**ultiply & **D**ivide from left to right
4. **A**dd & **S**ubtract from left to right

Write operators (x, +, -) in all of the empty squares to make each number sentence true. Remember to apply the Order of Operations, PEMDAS.

3	x	4	+	6	=	18
+		x		-		-
5	-	1	x	3	=	2
-		+		x		-
2	+	4	x	2	=	10
=		=		=		=
6	-	8	x	0	=	6

8	x	2	-	5	=	11
-		-		+		-
3	x	2	-	1	=	5
x		+		-		+
1	x	3	+	6	=	9
=		=		=		=
5	x	3	-	0	=	15

You earned $125.50 doing yard work for one neighbor and $178.50 doing yard work for another neighbor. How much did you earn altogether?

```
  125.50
+ 178.50
--------
 $304.00
```

Add or subtract these decimals. Stack the numbers and line the digits up by decimals.

$1.5 + 0.34 = \underline{1.84}$ $1.1 + 4.6 = \underline{5.7}$ $8.6 - 1.12 = \underline{7.48}$

$2.75 + 2.25 = \underline{5}$ $3.8 - 2.2 = \underline{1.3}$ $9.9 - 8.1 = \underline{1.8}$

$3.7 - 1.31 = \underline{2.39}$ $7.6 + 2.3 = \underline{9.9}$ $8.4 + 5.14 = \underline{13.54}$

154

Find the missing decimal addends.

$1.5 + \boxed{2.2} = 3.7$ $7.5 + \boxed{2.5} = 10$

$\boxed{2.8} + 2.2 = 5$ $\boxed{4.2} + 3.3 = 7.5$

$3.7 + \boxed{2.6} = 6.3$ $4.1 + \boxed{4.8} = 8.9$

start	5+4x2	13	3-12÷4	23	3+3+4	-11	5-1x4
	14		0		17		22
2 x 5 + 2	-2	2-8÷2	10	3+3x4	15	1-5x2	5+15÷3
	12		10		21		6		10
5 x 5 - 5	13	4 x 2 ÷ 2	5	1 x 3 + 2	3	8-10÷2	16	4+6 x 2
	20		18		9		15
3-18÷3	-3	4 x 8 ÷ 2	16	1+16÷4	5	2 x 3 + 7	13	finish
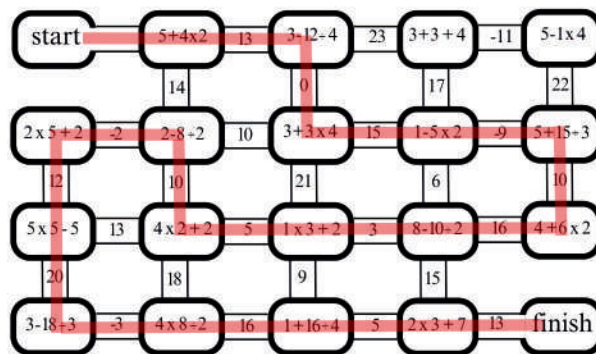
Find a common denominator, then add and subtract the fractions.

$\frac{12}{24} - \frac{1}{4} = \frac{1}{4}$ $\frac{1}{4} + \frac{5}{8} = \frac{7}{8}$ $\frac{2}{3} - \frac{3}{6} = \frac{1}{6}$ $\frac{1}{2} + \frac{1}{3} = \frac{5}{6}$

$\frac{1}{3} + \frac{1}{4} = \frac{7}{12}$ $\frac{5}{6} - \frac{3}{12} = \frac{7}{12}$ $\frac{1}{2} + \frac{3}{6} = \frac{1}{6}$ $\frac{7}{8} - \frac{1}{2} = \frac{3}{8}$

$\frac{1}{3} - \frac{1}{12} = \frac{2}{12}$ $\frac{3}{4} - \frac{3}{12} = \frac{6}{12}$ $\frac{3}{4} - \frac{3}{6} = \frac{3}{12}$ $\frac{2}{2} - \frac{1}{3} = \frac{2}{3}$

155

Date _____

Solve using the Order of Operations (PEMDAS):

$8 \div 4 \times 9 - 3 = \underline{15}$ $3 \times 7 - 3 \times 1 = \underline{18}$

$1 - 16 \div 4 + 3 = \underline{0}$ $3 + 7 \times 3 + 1 = \underline{25}$

$5 \times 5 - 4 \times 4 = \underline{9}$ $(3 + 7) \times (3 + 1) = \underline{40}$

$5 \times (5 - 4) \times 4 = \underline{20}$ $(3 + 7) + 3 \times 1 = \underline{13}$

Add the fractions and color the squares to match. Remember to simplify the result!

$\frac{13}{39} + \frac{2}{9} = \frac{5}{9}$ $\frac{3}{4} + \frac{1}{8} = \frac{7}{8}$ $\frac{1}{3} + \frac{4}{6} = \frac{6}{6}$

$\frac{1}{2} + \frac{1}{4} = \frac{3}{4}$ $\frac{1}{10} + \frac{1}{5} = \frac{3}{10}$ $\frac{1}{4} + \frac{1}{3} = \frac{7}{12}$
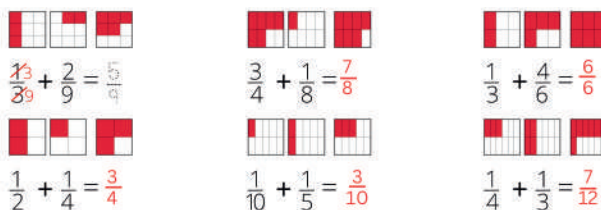
Add or subtract these percentages.

14% + 25% = _29%_   100% - 99% = _1%_

31% + 18% = _49%_   11% + 54% = _65%_

97% - 79% = _18%_   65% - 22% = _43%_

If your grandma was born in 1952 how old is she?

ANSWERS MAY VARY

You practiced the piano for half an hour every day and you have a lesson for one hour each week. How much time each week do you spend playing the piano?

4 1/2 hours

156

Use a tape measure to measure your door:

length: **ANSWERS MAY VARY** width: _____

Each pint of paint will cover 1,500 square inches and costs $8.95. How many pints of paint will you need? 2

How much will the paint cost? 2

If you pay with a $20 bill, how much change will you get? Draw the coins and bills. 2

Write operators (x, ÷, +, -) in all of the empty squares to make each number sentence true. Remember to apply the Order of Operations, PEMDAS.

9	÷	3	+	5	=	8
÷		X		+		+
9	-	3	-	2	=	4
+		-		-		
6	+	8	÷	4	=	8
=		=		=		=
7	-	1	X	3	=	4

7	-	6	+	2	=	3
+		-		-		X
3	+	12	÷	4	=	6
-		÷		+		-
4	X	3	-	4	=	8
=		=		=		=
6	+	2	X	2	=	10

What will be the date of your next birthday? _____

How many days is that from today? _____

What will be the date of your fifteenth birthday? _____

ANSWERS MAY VARY

157

Solve using the Order of Operations (PEMDAS):

$5 \times (5 - 4) \times 4 =$ 20 $\qquad$ $3 \times 6 - 3 \times 6 =$ 0

$5 \times 5(4 - 4) =$ 0 $\qquad$ $3 \times (6 - 3) \times 6 =$ 54

$5(5 - 4) \times 4 =$ 20 $\qquad$ $3(6 - 3) \times 6 =$ 54

$5(5 \times 4) - 4 =$ 96 $\qquad$ $3 \times 6(3 \times 6) =$ 324

$3^2 - 6(10-9) + 12 \div 2 =$ 9 $\qquad$ $(2^2 + 4) \div 2^3 + 1 =$ 2

Solve for x: (get x by itself)

$2(2 + X) = 10$

Step 1: divide BOTH sides of the equation by 2 $\qquad$ $2(2+X) = 10$

Step 2: subtract 2 from BOTH sides of the equation $\qquad$ $2(2+X) = 5 - 2$ $\qquad X = 3$

Step 3: Check your answer by replacing X with the answer. $\qquad$ $2(2 + 3) = 10$ $\qquad$ true!

Solve for the variable:

$X + 8 = 10$ $\qquad X =$ 2 $\qquad$ $4(5 - X) = 12$ $\qquad X =$ -43

$(X + 6) \div 3 = 5$ $\qquad X =$ 9 $\qquad$ $7X = 21$ $\qquad X =$ 3

$2 + 3(8 - X) = 11$ $\qquad X =$ 5 $\qquad$ $2(X + 5) - 5 = 17$ $\qquad X =$ 6

The operators are missing! Insert the correct operator (+, -, x, ÷) in each yellow circle to make the number sentence true. All answers have been simplified.

$\frac{1}{2}$ X $\frac{1}{3} = \frac{1}{6}$ $\qquad$ $\frac{2}{4}$ X $\frac{3}{4} = \frac{6}{16} = \frac{3}{8}$ $\qquad$ $\frac{2}{3} \div \frac{3}{4} = \frac{8}{9}$ $\qquad$ $\frac{2}{5} \div \frac{5}{5} = \frac{10}{15} = \frac{2}{3}$

$\frac{1}{3}$ X $\frac{1}{4} = \frac{1}{12}$ $\qquad$ $\frac{1}{4} \div \frac{2}{3} = \frac{3}{8}$ $\qquad$ $\frac{2}{5}$ X $\frac{1}{3} = \frac{2}{15}$ $\qquad$ $\frac{2}{3} + \frac{1}{3} = \frac{3}{3} = 1$

$\frac{1}{2} + \frac{1}{5} = \frac{7}{10}$ $\qquad$ $\frac{2}{3} - \frac{1}{3} = \frac{1}{3}$ $\qquad$ $\frac{4}{5} - \frac{2}{5} = \frac{2}{5}$ $\qquad$ $\frac{3}{4}$ X $\frac{2}{3} = \frac{6}{12} = 1$

158

Use the menu prices to add up the cost of each order. Find each customer's change if they pay with a $10.00 bill.

jamaica and 2 tacos

$1.95 $\qquad$ $10.00
$0.65 $\qquad$ - $3.25
+$0.65 $\qquad$ $6.75
$3.25

horchata and two quesadillas

$10.00
-$4.95
$5.05
$1.95
$1.50
+$1.50
$4.95

TACO TRUCK MENU
served with beans and rice

taco	$0.65
quesadilla	$1.50
tlacoyo	$1.80
burrito	$1.45
torta	$3.75
tamale	$1.25
jamaica	$1.95
horchata	$1.95

jamaica, torta and 2 tamales

$1.95 $\qquad$ $10.00
$3.75 $\qquad$ - $8.20
$1.25 $\qquad$ $1.80
+$1.25
$8.20

1571 R0
3) 4 7 1 3
- 3
1 7
- 1 5
0 2 1
- 2 1
0 0 3
- 0 3
Remainder 0

0826 R2
5) 4 1 3 2
- 0
4 1
- 4 0
0 1 3
- 1 0
0 3 2
- 3 0
Remainder 2

0886 R1
6) 5 3 1 7
- 0
5 3
- 4 8
0 5 1
- 4 8
0 3 7
- 3 6
Remainder 1

Check your division. Multiply each quotient by its divisor.

1 5 7 1
x 3
4 7 1 3
add the remainder 4713

8 2 6
x 5
4 1 3 0
add the remainder 4132

8 8 6
x 6
5 3 1 6
add the remainder 5317

159

Solve using the Order of Operations (PEMDAS):

$4^2 \div 2(3 - 1) \times \sqrt{9} =$ 12 $\qquad$ $5^2 - 2(9 - \sqrt{16}) \div 2 =$ 20

$3 + 5^2 - \sqrt{81} =$ 19 $\qquad$ $2 + (6^2 - 3) \div 3 =$ 13

$8(5 + 4) \div 12 =$ 6 $\qquad$ $7(5 - 2) \div 3 =$ 7

$2(5 \times 3 - 2^2 \times 3) - 4 =$ 2 $\qquad$ $\sqrt{3} \times 3 + 4^2 =$ 5

$4^2 - 6 \times 2 + 14 \div 2 =$ -2 $\qquad$ $(8 + 4) \div 2 + 1^3 =$ 7

Subtract the fractions and color the squares to match. Remember to simplify the result!

$\frac{1}{3} - \frac{2}{9} = \frac{1}{9}$ $\qquad$ $\frac{3}{4} - \frac{3}{8} = \frac{3}{8}$ $\qquad$ $\frac{2}{3} - \frac{3}{6} = \frac{1}{6}$

$\frac{1}{2} - \frac{1}{4} = \frac{1}{4}$ $\qquad$ $\frac{4}{5} - \frac{3}{10} = \frac{5}{10}$ $\qquad$ $\frac{1}{3} - \frac{1}{4} = \frac{1}{12}$

Measure this rectangle with a ruler, using inches.

length: 2 $\qquad$ width: 1

perimeter: 6 $\qquad$ area: 2

Divide the rectangle into eighths. Shade two parts. What fractional part is shaded? 1/4

What fractional part is not shaded? 3/4

160

Division Problems

Problem 1: divisor → 2, quotient → 2 6 9 4 R 1

$$2 \overline{)\ 5\ 3\ 8\ 9}$$

- 4
- 1 3
- 1 2
- 0 1 8
- 1 8
- 0 0 9
- 0 8

Remainder 1

Problem 2: 0 3 4 9 R 5

$$9 \overline{)\ 3\ 1\ 4\ 6}$$

- 0
- 3 1
- 2 7
- 0 4 4
- 3 6
- 0 8 6
- 8 1

Remainder 5

Problem 3: 0 9 6 7 R 2

$$5 \overline{)\ 4\ 8\ 3\ 7}$$

- 0
- 4 8
- 4 5
- 0 3 3
- 3 0
- 0 3 7
- 3 5

Remainder 2

Multiply the QUOTIENT and divisor from each problem above to check your division.

2 6 9 4	← quotient
x 2	← divisor
5 3 8 8	

add the remainder 5389

3 4 9
x   9
3 1 4 1

add the remainder 3146

9 6 7
x   5
4 8 3 5

add the remainder 4837

Find the missing fractional addends to make each number sentence true.

$$\frac{12}{24} + \frac{1}{4} = \frac{3}{4}$$

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

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

$$\frac{3}{6} + \frac{12}{36} = \frac{5}{6}$$

$$\frac{2}{8} + \frac{5}{8} = \frac{7}{8}$$

$$\frac{3}{6} + \frac{2}{6} = \frac{5}{6}$$

$$\frac{1}{6} + \frac{1}{3} = \frac{1}{2}$$

$$\frac{1}{12} + \frac{2}{12} = \frac{1}{4}$$

$$\frac{3}{12} + \frac{3}{12} = \frac{1}{2}$$

$$\frac{5}{10} + \frac{3}{10} = \frac{4}{5}$$

$$\frac{2}{5} + \frac{3}{5} = \frac{5}{5} = 1$$

$$\frac{3}{10} + \frac{3}{5} = \frac{9}{10}$$

161