

# Math summer work (outgoing 6th grade)

\*Due on Sept. 1st

## Helpful Information:

There are three ways to write ratios.




Statement	Ways to Write a Ratio		
	In Words	With a Symbol	As a fraction
4 puppies to 2 kittens	4 to 2	4:2	$\frac{4}{2}$

### Adding & Subtracting Decimals

Steps:

1. Stack your decimals.
2. Put placeholders (zeros) in empty spaces, if needed.
3. Drop your decimal point.
4. Add or Subtract

$$\begin{array}{r} 34.567 \\ + 65.371 \\ \hline 99.938 \end{array}$$

<p>RECTANGLE</p> <p><math>A=bh</math></p>  <p><math>A=bh</math> <math>A=6 \cdot 5</math> <math>A=30</math></p>	AREA FORMULAS
<p>PARALLELOGRAM</p> <p><math>A=bh</math></p>  <p><math>A=bh</math> <math>A=8 \cdot 4</math> <math>A=32</math></p>	
<p>TRIANGLE</p> <p><math>A= \frac{1}{2} bh</math> or <math>\frac{bh}{2}</math></p>  <p><math>A= \frac{1}{2} bh</math> <math>A= \frac{1}{2} \cdot 4 \cdot 3</math> <math>A= \frac{1}{2} \cdot 12</math> <math>A=6</math></p>	

## GRAPHING INEQUALITIES

	OPEN ○	CLOSED ●
LEFT ←	$<$	$\leq$
RIGHT →	$>$	$\geq$

### ASK YOURSELF ...

- 1- Where is the Point?
- 2- Is the Point Open or Closed?
- 3- Is the Shading to the Left or Right?

<p><b>Mean</b></p> <p>© 2012 Classroom Computation   All Rights Reserved.</p>	<p><b>the average of a set of numbers</b></p> <p>© 2012 Classroom Computation   All Rights Reserved.</p>
<p><b>Median</b></p> <p>© 2012 Classroom Computation   All Rights Reserved.</p>	<p><b>the middle number in a set of data</b></p> <p>© 2012 Classroom Computation   All Rights Reserved.</p>
<p><b>Mode</b></p> <p>© 2012 Classroom Computation   All Rights Reserved.</p>	<p><b>the number which appears most often in a set of numbers</b></p> <p>© 2012 Classroom Computation   All Rights Reserved.</p>
<p><b>Range</b></p> <p>© 2012 Classroom Computation   All Rights Reserved.</p>	<p><b>the difference between the lowest and highest numbers in a data set</b></p> <p>© 2012 Classroom Computation   All Rights Reserved.</p>

# SHOW ALL WORK!

Name \_\_\_\_\_

Directions: Show all of your work. Circle or put a box around your final answer.

**THE NUMBER SYSTEM**

1)  $4.7 - 3.28 =$

2)  $42.7 + 52.12 =$

3)  $1.2 \times 0.015 =$

4)  $4\frac{3}{4} \times 2\frac{1}{8} =$

- 5) The table below shows the overnight low temperatures for a four-day period. Write the temperatures in order **from least to greatest**.

Temperatures (°F)	
Monday	-7
Tuesday	8
Wednesday	19
Thursday	-10

6) Find the greatest common factor of 18 and 24.

7) Find the least common multiple of 9 and 12.

8) A radio station is having a promotion in which every 12th caller receives a free concert ticket and every 15th caller receives a limo ride. Which caller will be the first one to win both?

**RATIOS & PROPORTIONAL RELATIONSHIPS**

9) Minerva paid \$84 for 8 stuffed animals. How much did each stuffed animal cost? Complete the rate table.

<b>COST</b>	<b>84</b>		
<b>NUMBER OF STUFFED ANIMALS</b>	<b>8</b>		

10) The Camdens drove 120 miles on 5 gallons of gas. At this rate, how many miles can they drive on 7 gallons of gas? Complete the rate table below.

<b>MILES</b>	<b>120</b>		
<b>GALLONS</b>	<b>5</b>		

11) Michelle wants to buy a cell phone. The phone is 30% off the original price. If the original price of the phone is \$135, what is the amount Michelle will save?

$$\frac{\text{part}}{\text{whole}} = \frac{\text{percent}}{100}$$

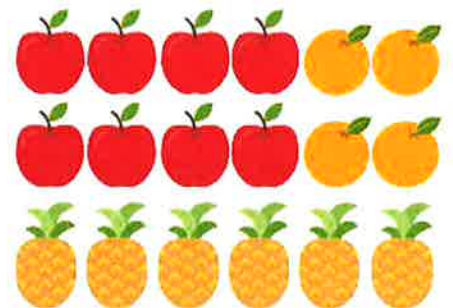
**PERCENT** - the number with the percent sign (%).

**PART** - the number with the word is.

**WHOLE** - the number with the word of.

12) Sean spelled 13 out of 20 words right on his spelling test. What is his score as a percent?

13) What is the ratio of apples to pineapples?



14) What is the ratio of pineapples to all fruit?

15) The ratio of dogs to cats is 2 to 3. If there are 18 dogs, how many cats are there?

**EXPRESSIONS & EQUATIONS**

16) Solve for x.

$$x+9 = 15$$

17) Use the distributive property to solve.

$$3(x-2)$$

18) Write the verbal expression as an algebraic expression.

**Five less than a number** → \_\_\_\_\_

19) Write the verbal expression as an algebraic expression.

**Six more than twice a number** → \_\_\_\_\_

- 20) Write an inequality for the given situation. Then write 3 numbers that would make the situation true.

**The temperature was less than 32° Fahrenheit.**

Inequality: \_\_\_\_\_

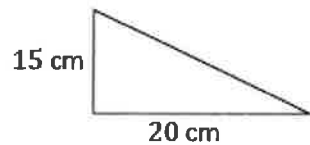
Numbers: \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

- 21) Graph the inequality.

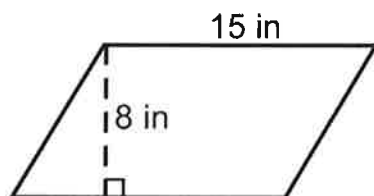


### GEOMETRY

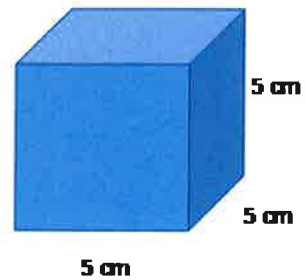
- 22) Find the area of the triangle below.



- 23) Find the area of the parallelogram.



24) Calculate the surface area of the cube.

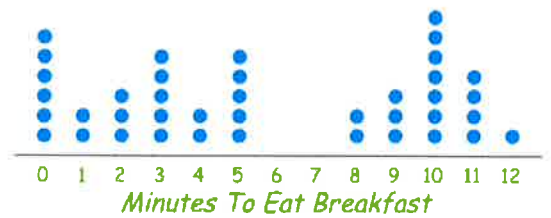


**STATISTICS**

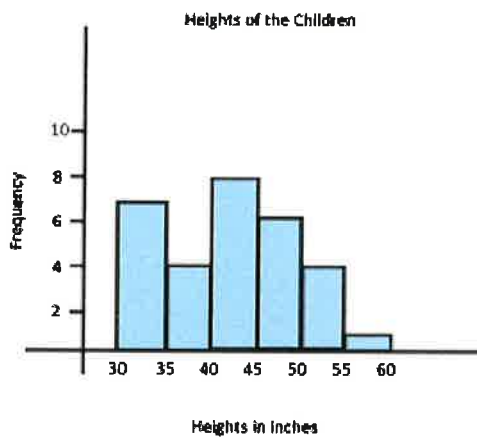
25) Write two facts about the dot plot.

A.

B.



26) Use the histogram to answer the following question. How many children are over 45 inches in height?



27) Find the median of the data set: 2, 6, 3, 0, 1, 9, 1, 3, 4, 1

28) Find the mode of the data set above.

29) Find the mean of the data set above.

30) Find the range of the data set above.