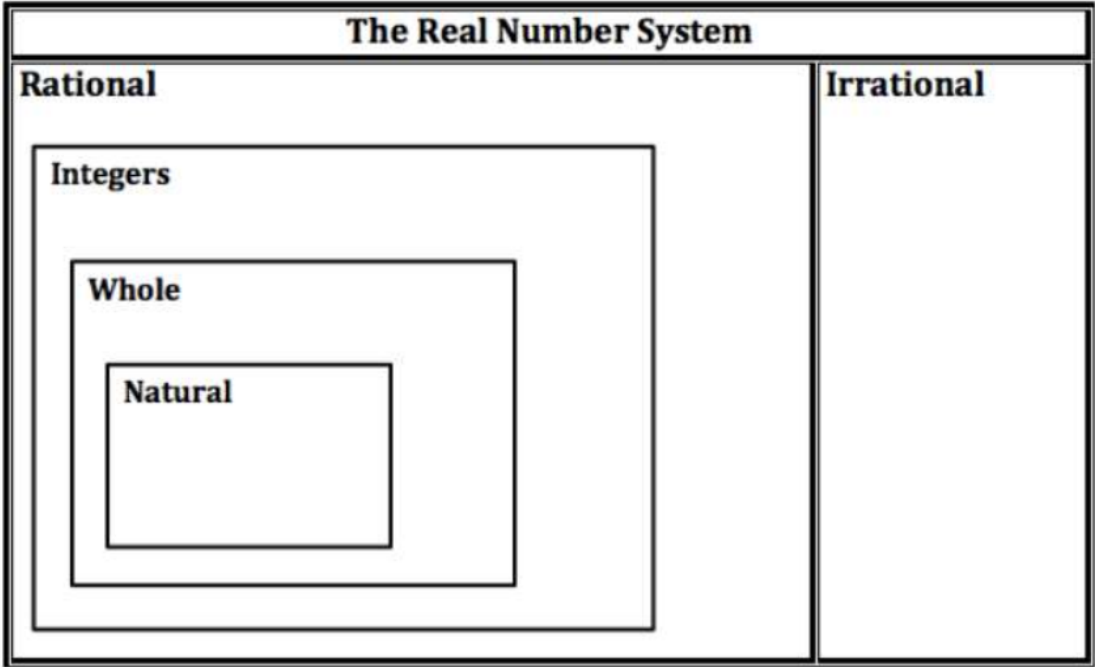1.Pick up the two Handouts on the table and get started on the all about me Handout.

*don't forget...bookbags go against the walls!!

Algebra 1   Unit 1

Day 1: Positive/Negative/Zero Integers, Rounding Decimals, Comparing Decimals/Integers

The Real Number System

Rational   **Irrational**

> **Integers**
>
> > **Whole**
> >
> > > **Natural**

Directions: Classify the following numbers and then circle the most specific classification for that number.

Number	Classifications
¼	
6	
6.75	
3.4921…	
-15	
$\sqrt{7}$	
0	
5π	

Understanding Number Lines

The set of whole numbers and their opposites, including zero, are called **integers**.
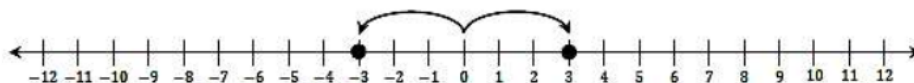
1. What is the relationship between -3 and 3? How far away are both -3 and 3 from zero?
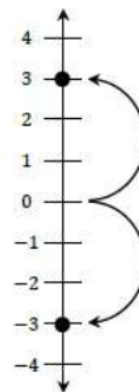
2. On a horizontal number line, where are negative values located?

3. On a vertical number line, where are positive values located?
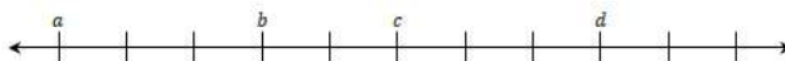
4. Circle the larger number:

1. -5 or -9   2. -3 or -1   3. -45 or -48   4. -123 or -120

5. Use the number line below to answer the following questions:

a. If zero is located at c, what are the values of a, b, & d? a = _____, b = _____, d = _____

b. If b is equal to -24, what are the values of a, c, & d? a = _____, c = _____, d = _____

c. If zero is located in the middle of a and d, what are the values for a, b, c, and d?

a = _____, b = _____, c = _____, d = _____

Absolute Value is the distance a value is from zero. We use | | when expressing numbers that we want the absolute value of. Name the absolute value of the following numbers:

$|-3| = 3$ $|0| = 0$ $|5| = 5$
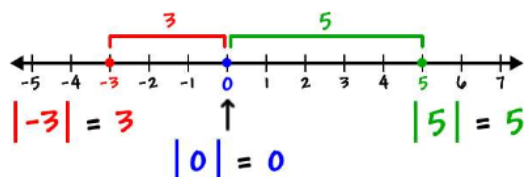
a. $|4| =$ _____   b. $|-6| =$ _____

c. $|-24| =$ _____   d. $|0| =$ _____

e. The distance from -8 is to zero is _____ units.

Reviewing Rounding and Inequalities

Inequality Symbols:

Round the following numbers to the given place value in the table.

Number	Round to Nearest Ten	Round to Nearest One	Round to Nearest Tenth	Round to Nearest Hundredth	Round to Nearest Thousandth
23.1768					
45.3455					
125.3578					
435.9008					
236.0895					

Order the following numbers from **least to greatest**.

   -12 0.3 -2.5 7 -2.9 -3 1 5.7

Fill in each space below with $<, >,$ or $=$.

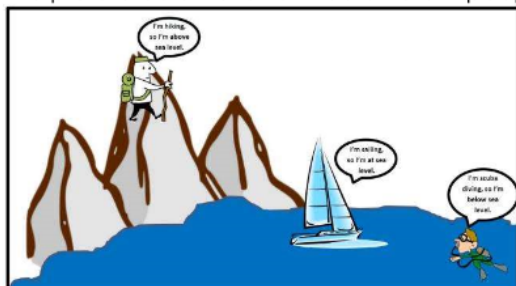a) -4 7 b) 5 -5 c) 2.0 2 d) -1.2 -1.1

4

Integers in Context

The picture below shows three different people participating in activities at three different elevations. What do you think the word elevation means?

Represent each description with an integer:

a. The scuba diver is 30 feet below sea level. ____

b. The sailor is at sea level. _____

c. The hiker is 10,560 feet above sea level. _____

Write an integer that represents each scenario below. Underline any key words.

a. Lost 6 points

b. 3 strokes below par

c. $5 deposit

d. A loss of $30

e. descend 20 meters

f. 12 centimeters longer

h. 5000 feet above sea level

i. 7 inches below normal

j. $5 off the original price

k. ascend 100 meters

l. 10 strokes above par

m. 6 yard loss