Warm Up:
Simplify.

(2 + 3y) - 10y

3a - 4b + (5a - 3b)

6(5f)

81xy

9x

ACT Question:
Which one of the following fractions is greatest?
A.) 15/16  
B.) 7/9  
C.) 13/15  
D.) 8/9  
E.) 10/11

Vocabulary:

Value: is a numbers distance from zero on a number line.

Opposites: two numbers that are the same distance from 0 on a number line but in opposite directions.

Inverse: a number and its additive inverse

Adding Real Numbers:
Same sides add and keep different signs subtract, take the sign of the bigger number then you'll be exact!
Examples 1-4:
Find each sum.

Examples 5-8:
Find each sum.

(With your shoulder buddy)

Subtracting Real Numbers:
To subtract a real number, add its opposite.

Algebra:
Example:

Examples 9-12:
Find each difference.
Examples 13-16: (with your shoulder buddy)
Find each difference.

24 - (−16)
35 - (−15)
4.8 - (−8.7)
−8 - (−13)

Example 17:
A reef explorer dives 25 ft to photograph brain coral and then rises 16 ft to travel over a ridge before diving 47 ft to survey the base of the reef. Then the diver rises 29 ft to see an underwater cavern. What is the location of the cavern in relation to sea level?

1.6 Multiplying and Dividing Real Numbers

Vocabulary:
of a non zero number is . The product of a and its reciprocal is .

Division involving zero: The quotient of and nonzero real number is . The quotient of any real number and is undefined.

Example:

Learning Goal: IWBAT find products and quotients of real numbers.
Multiplying and Dividing Real Numbers:
The product/quotient of two real numbers with different signs is negative.

Example:
2(−3) = −6
−2(3) = −6

The product/quotient of two real numbers with the same sign is positive.

Example:
2(3) = 6
−2(−3) = 6

Examples 18-25:
Find each product or quotient.

Examples 26-28:
Find each quotient. Simplify is necessary.

Summary
When adding numbers of different signs what do I do?

When multiplying or dividing with the same sign what type of number do I end up with?

How do I divide fractions? (shortcut)