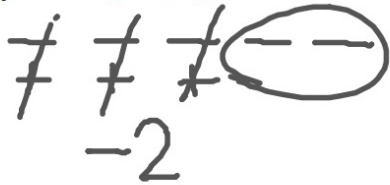


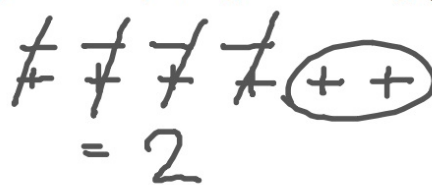
September 3, 2014^{4th}
Starter

Use counters to show the answer for these problems:

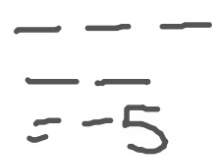
1. $-5 + 3$



2. $-4 + 6$

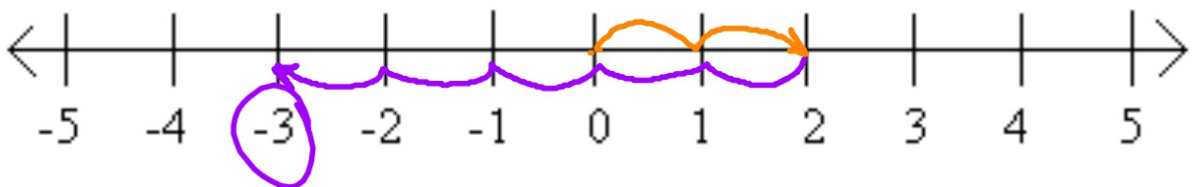


3. $-3 + (-2)$



Use a numberline to show the answer for this problem:

4. $2 + (-5)$



$= -3$

9/3 - Adding Integers using Rules

9/4

With your partner, answer each of the following:

Is the sum of 2 integers positive, negative or zero?
How can you tell?

more positives = positive

more negatives = negative

Same number of +/- = 0

$$-12 + (-3)$$

Adding Integers with the Same Sign

Words Add the absolute values of the integers, then use the common sign.

Numbers $2 + 5 = 7$ $-2 + (-5) = -7$

Write the rule in your own words:

Ignore the signs

Add the numbers then

keep the sign you started with

Adding Integers with Different Signs

Words Subtract the lesser absolute value from the greater absolute value. Then use the sign of the integer with the greater absolute value.

Numbers $8 + (-10) = -2$ $-13 + 17 = 4$

Write this rule in your own words:

Ignore the signs; subtract the smaller number from the bigger number.
Use the sign of the biggest #.

Additive Inverse Property

Words The sum of an integer and its **additive inverse**, or opposite, is 0.

Numbers $6 + (-6) = 0$ $-25 + 25 = 0$ **Algebra** $a + (-a) = 0$

Write this rule in your own words:

Add 2 opposites = 0

On Your Own

Add.

$$4. -2 + 11 = 9 \quad 5. 13 + (-8) = 5 \quad 6. 9 + (-10) = -1$$

$$7. -8 + 4 = -4 \quad 8. 7 + (-7) = 0 \quad 9. -31 + 31 = 0$$

Three questions to ask yourself on every one:

1. Are the signs the same or different?

2. Do I add or subtract?

3. Is the answer positive or negative?

Real life connections:

Write an expression for what is given then compute it.
Remember labels in your answers.

BANKING Your bank account has a balance of $-\$12$. You deposit $\$60$.
What is your new balance?

$$\underbrace{-12 + 60}_{\$} = 48$$

TEMPERATURE The temperature is -3°F at 7:00 A.M. During the next 4 hours, the temperature increases 21°F . What is the temperature at 11:00 A.M.?

$$-3 + 21 = 18^{\circ}\text{F}$$

What if...

...there are more than 2 numbers?

Use the commutative property

$$\begin{aligned} & \underline{7 + (-12)} + (-7) \\ & \rightarrow \\ & = -5 + (-7) \\ & = -12 \\ & \underline{7} + (-12) + \underline{(-7)} \\ & = -12 \end{aligned}$$

$$\begin{aligned} & \underline{-12} + 25 + \underline{(-15)} \\ & = -27 + 25 \\ & = -2 \\ & \underline{-12} + \underline{25} + \underline{(-15)} \\ & = -12 + 10 \\ & = -2 \end{aligned}$$

$$\begin{aligned} & 6 + \underline{(-9)} + \underline{14} \\ & = 6 + 5 \\ & = 11 \\ & \underline{6} + \underline{(-9)} + \underline{14} \\ & = 20 + (-9) \\ & = 11 \end{aligned}$$

Homework
Buff WS Practice A

Due Friday