

September 2, 2014 5<sup>th</sup>  
6<sup>th</sup>  
Starter

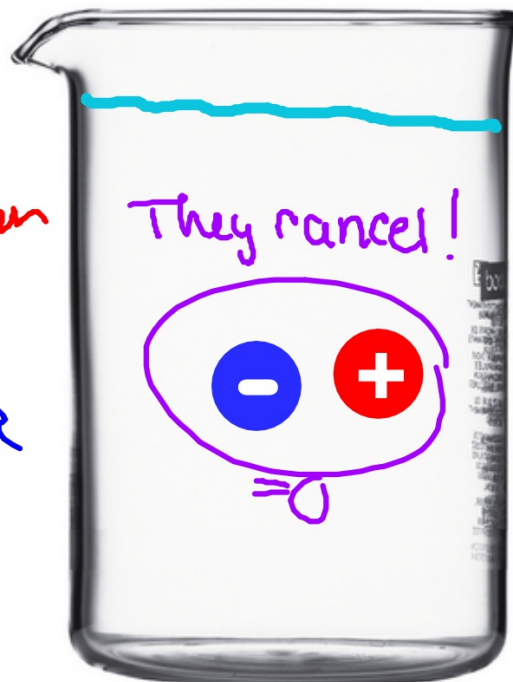
Clear off your desk  
except a sharpened pencil  
and be ready to go  
when the bell rings.

## 9/2 Adding Integers using Counters and Numberlines

### "Integer Counters"

**+** = one positive  
*one degree warmer*

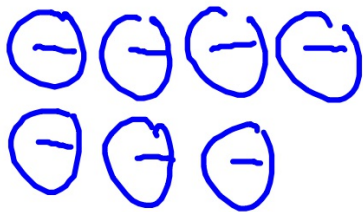
**-** = one negative  
*one degree colder*



**1 ACTIVITY:** Adding Integers with the Same Sign

Work with a partner. Draw a picture to show how you use integer counters to find  $-4 + (-3)$ .

$$\underbrace{\ominus \ominus \ominus \ominus}_{-4} + \underbrace{\ominus \ominus \ominus}_{-3} = -7$$



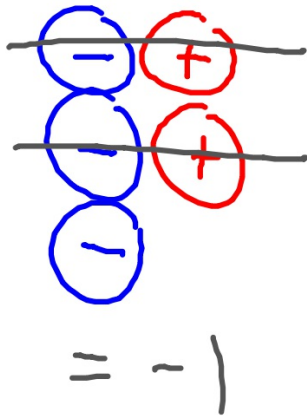
**2 ACTIVITY:** Adding Integers with Different Signs

Work with a partner. Draw a picture to show how you use integer counters to find  $-3 + 2$ .



A hand-drawn equation representing the addition of integers. It shows three blue circles, each containing a minus sign (-), followed by a plus sign (+), then two red circles, each containing a plus sign (+), followed by an equals sign (=), a minus sign (-), and a vertical bar (|).

$$(-) (-) (-) + (+) (+) = - |$$



A hand-drawn diagram illustrating the cancellation of integer counters. It shows three blue circles with minus signs and two red circles with plus signs arranged in two rows. The first two rows are crossed out with horizontal lines, leaving one blue circle with a minus sign. Below this is an equals sign followed by a minus sign and a vertical bar.

$$\begin{array}{cc} \cancel{(-)} & \cancel{(+)} \\ \cancel{(-)} & \cancel{(+)} \\ (-) & \end{array} = - |$$

## Number lines

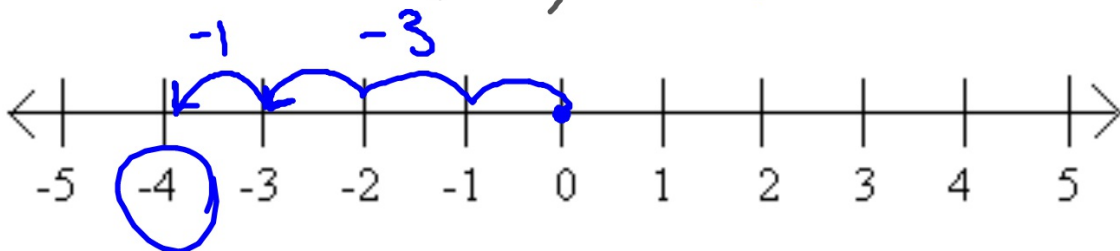


Positive = one to the right



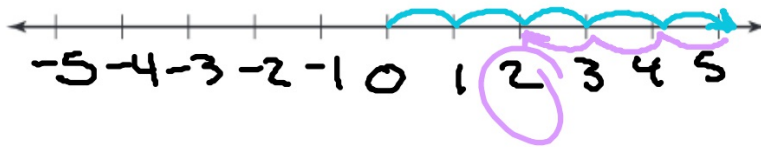
Negative = one to the left

$$-3 + (-1) = -4$$



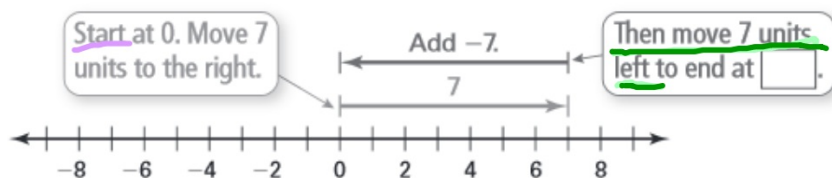
**3** **ACTIVITY:** Adding Integers with Different Signs

Work with a partner. Show how to use a number line to find  $5 + (-3)$ .



**4 ACTIVITY:** Adding Integers with Different Signs

Work with a partner. Write the addition expression shown. Then find the sum. How are the integers in the expression related to 0 on a number line?



$$7 + (-7) = 0$$

Opposites  
"Additive Inverses"

Homework

Gold WS3

Due Wednesday