


September 2, 2014 4<sup>th</sup>  
Starter

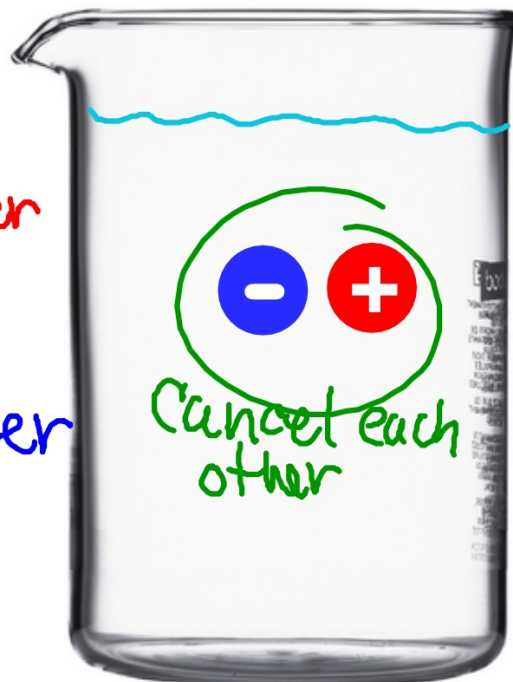
Clear off your desk  
except a sharpened pencil  
and be ready to go  
when the bell rings.

## 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  $-4 + (-3)$ .

A hand-drawn diagram in blue ink. On the left, there are four circles arranged in a 2x2 grid, each containing a minus sign. To the right of these is a plus sign, followed by three circles arranged in a 2x2 grid with the bottom-right circle missing, each containing a minus sign. To the right of these is an equals sign, followed by a minus sign and the number 7.

$$\begin{array}{cc} (-) & (-) \\ (-) & (-) \end{array} + \begin{array}{cc} (-) & (-) \\ & (-) \end{array} = -7$$

A hand-drawn diagram in purple ink. On the left, there are four circles in a horizontal row, each containing a minus sign. To the right is a plus sign, followed by three circles in a horizontal row, each containing a minus sign. To the right is an equals sign, followed by a minus sign and the number 7.

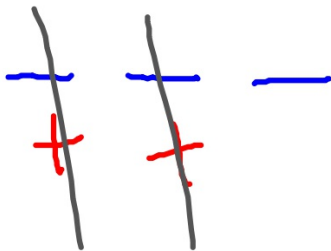
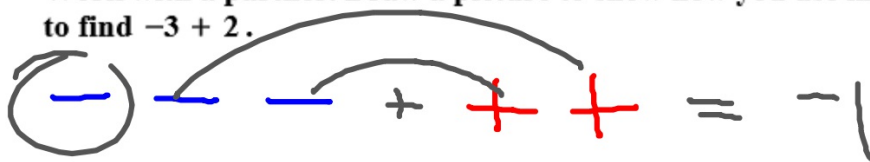
$$(-) (-) (-) (-) + (-) (-) (-) = -7$$

A hand-drawn diagram in green ink. On the left, there are seven circles arranged in two rows: three in the top row and four in the bottom row, each containing a minus sign. To the right is an equals sign, followed by a minus sign and the number 7.

$$\begin{array}{ccc} (-) & (-) & (-) \\ (-) & (-) & (-) & (-) \end{array} = -7$$

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

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



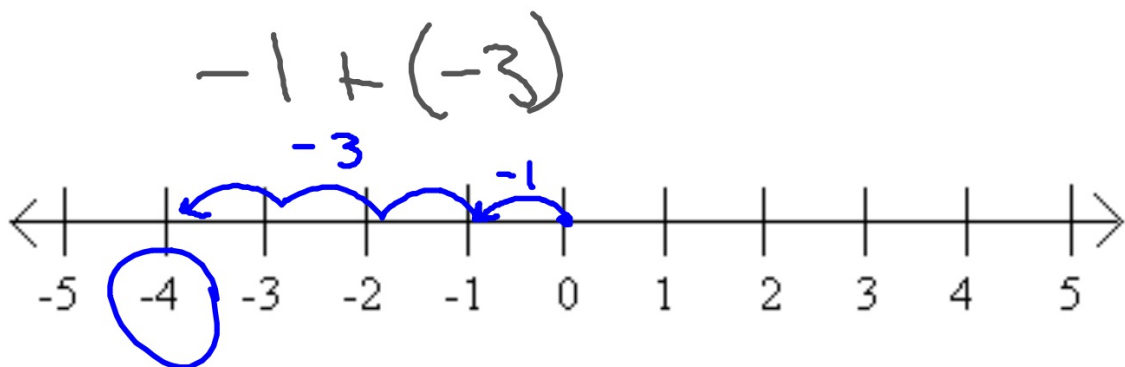
## Number lines



Positive = one to the right

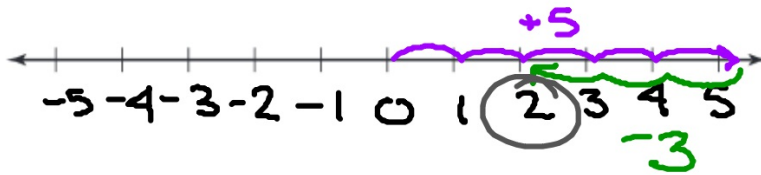


Negative = one to the left



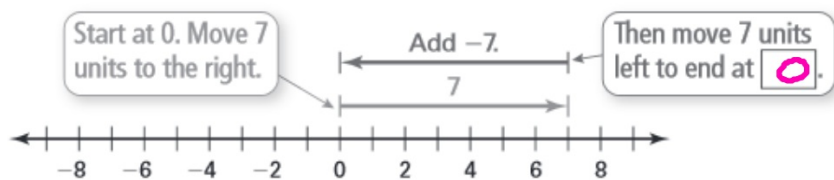
**3** **ACTIVITY:** Adding Integers with Different Signs

Work with a partner. Show how to use a number line to find  $5 + (-3) = 2$



**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 WS 3

Due Wednesday