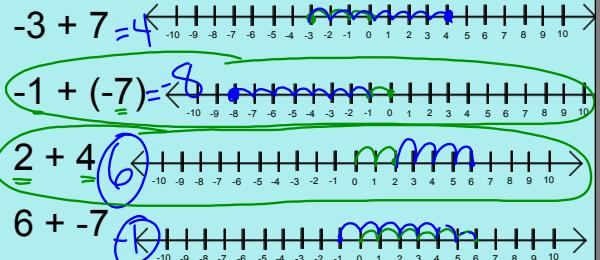


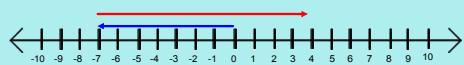
Pre-Algebra  
Lesson 1.5  
Adding Integers

Goal: to add integers using a number line and without a number line.

Use the number line to show how to add the following:



Here we are adding a negative and a positive integer. How do the arrows show what the sign will be?



Rules for adding numbers:

same sign- *Keep the sign, Add the values*

different signs- *Keep sign of larger + then sub. the values*  
opposite numbers- *equals 0*

$$3 + (-3) = 0 \quad \text{---} \quad \begin{array}{ccccccc} & & & & & & \\ \cancel{+} & \cancel{-} & \cancel{+} & \cancel{-} & \cancel{+} & \cancel{-} & \cancel{+} \\ 0 & 1 & 2 & 3 & 4 & 5 & 6 \end{array}$$

$$(-5) + 5 = 0$$

Find the sum:

$$-41 + 26$$

$$\begin{array}{r} -15 \\ \underline{-26} \\ 15 \end{array}$$

$$-19 + (-11)$$

$$\begin{array}{r} -11 \\ \underline{-30} \\ -30 \end{array}$$

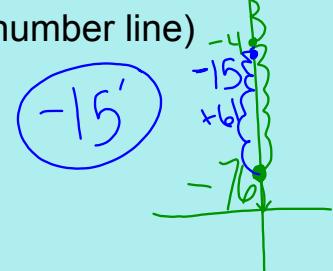
$$52 + (-30) + (-46)$$

$$\begin{array}{r} -30 \\ -22 \\ \underline{-46} \\ -24 \end{array}$$

$$22$$

$$\begin{array}{r} 46 \\ -22 \\ \hline -16 \end{array}$$

A scuba diver studying marine life is 4 feet below sea level. She goes 72 feet lower to reach the ocean floor and then rises 61 feet. Where is this diver relative to sea level?  
(try a vertical number line)



Evaluate when  $a = -18$  and  $b = -3$

$$-18 + (-8)$$

$$\begin{array}{r} -26 \\ -26 \end{array}$$

$$-18 + -3 + 30$$

$$\begin{array}{r} -21 + 30 \\ 9 \end{array}$$

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#13, 14-30(4th), 32, 34, 35,  
38, 41, 45, 46, 48, 54