

W-PA Pre-Algebra 9/28 Week 4

$$\begin{array}{r} 4x + 6y - 2z \\ \downarrow \quad \downarrow \quad \downarrow \\ \{ 4(3) + 6(4) - 2(5) \\ 12 + 24 - 10 \\ 36 - 10 = 26 \end{array} \quad x=3 \quad y=4 \quad z=5$$

$$\begin{array}{l} 1.) \quad 7p + q(3+r) \quad p=3 \quad q=2 \quad r=4 \\ 7(3) + 2(3+4) \\ 21 + 2(7) \\ 21 + 14 = \boxed{35} \end{array}$$

$$\begin{array}{l} 2.) \quad \frac{36}{j} - 4(k+m) \quad j=2 \quad k=1 \quad m=3 \\ \frac{36}{2} - 4(1+3) \\ \frac{36}{2} - 4(4) \quad 18 - 16 = \boxed{2} \end{array}$$

Absolute value - the distance between a number and 0 on the number line

$$|-3| = 3 \quad |4| = 4 \quad -|-7| = -7 \quad -|8| = -8$$

Comparing using $>$ $<$ $=$



greater than

less than

1.) $| -3 | = 3$ $| -1 | = 1$ $3 > 1$ 2.) $| -1 | = 1$ $| 1 | = 1$ $1 = 1$ 3.) $| -3 | = 3$ $| 2 | = 2$ $3 > 2$

4.) $-3 > -5$

5.) $5 > | -4 | = 4$

6.) $-6 < -4$

7.) $| -2 | = 2$ $3 > 2$

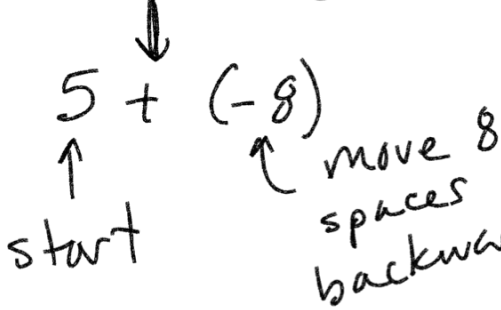
8.) $4 > | -2 | = 2$

Adding Integers

$5 + (-8) = -3$

(Note: In the original image, the 5 has blue '00' and a blue checkmark, and the 8 in (-8) has red '00' and a red checkmark.)

direction \downarrow -3



$-3 + -4$

same signs, take their sum

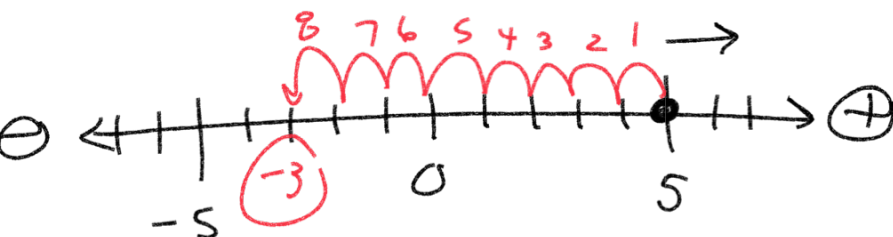
$3 + 4 = 7$
 $-3 + (-4) = -7$

If signs are different, take their difference

$5 + (-8) = -3$

$8 - 5 = 3$

Larger sign stays



$$1.) -4 + 10 = \boxed{6}$$

$$10 - 4 = 6$$

$$5.) 8 + (-4) = \boxed{4}$$

$$8 - 4 = 4$$

$$2.) 4 + (-10) = \boxed{-6}$$

$$10 - 4 = 6$$

$$6.) -8 + (-4) = \boxed{-12}$$

$$8 + 4 = 12$$

$$3.) \downarrow 4 + \downarrow 10 = \boxed{14}$$

$$4 + 10 = 14$$

$$7.) -8 + 4 = \boxed{-4}$$

$$8 - 4 = 4$$

$$4.) -4 + (-10) = \boxed{-14}$$

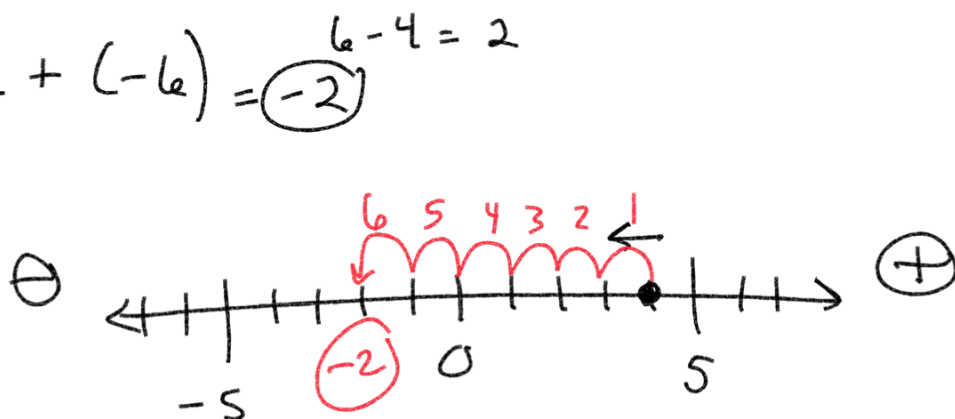
$$4 + 10 = 14$$

$$8.) 8 + 4 = \boxed{12}$$

direction

$$\textcircled{4} - \boxed{6} = 4 + (-6) = \textcircled{-2}$$

start forward 6

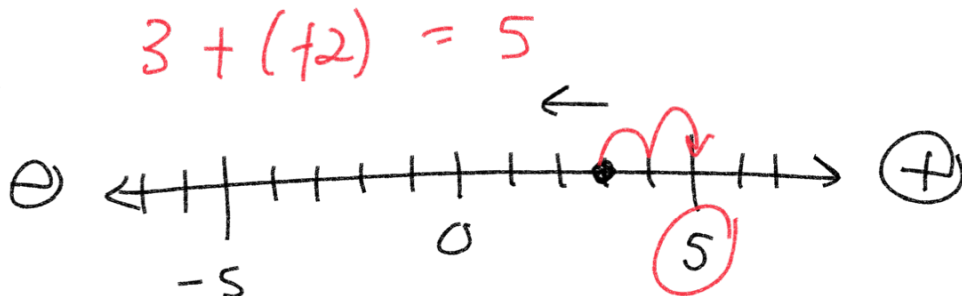


direction

$$\textcircled{3} - (-2) = 5$$

start backwards 2

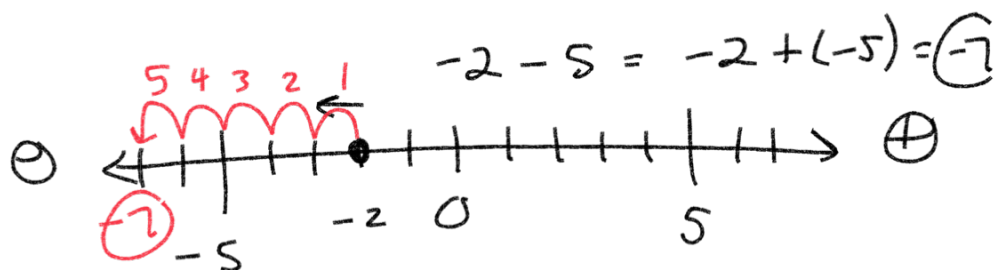
direction



direction

$$-2 - 5 = -7$$

start forward 5



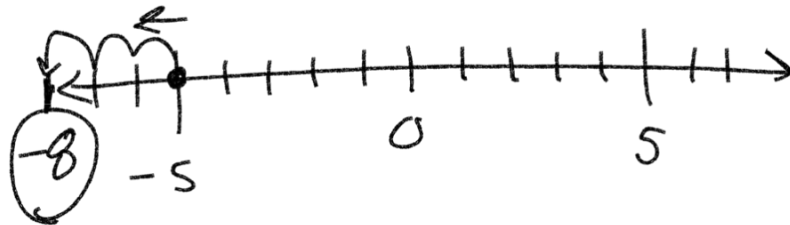
$$1.) -5 - 3 = \boxed{-8}$$

$$\downarrow -5 + (\downarrow -3)$$

$$2.) 5 - 3 = 2$$

same \rightarrow sum

$$5 + 3 = 8$$



$$3.) 5 - (-3) = \boxed{8}$$

back 3

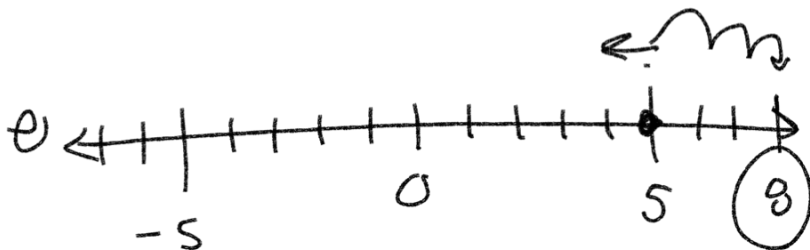
$$5 + (+3) = 8$$

$$4.) -5 - (-3) = \boxed{-2}$$

$$-5 + +3$$

$$\textcircled{-5} + 3$$

$$5 - 3 = 2$$



$$1.) 9 - (-6)$$

$$9 + +6 = \boxed{15}$$

$$2.) -9 - (-6) = \boxed{-3}$$

$$-9 + +6$$

$$\textcircled{-9} + 6$$

$$9 - 6 = 3$$

$$3.) 9 - 6 = \boxed{3}$$

$$4.) -9 - 6 = \boxed{-15}$$

$$\downarrow 9 + (\downarrow -6)$$

$$9 + 6 = 15$$

