M-PA Pre-Algebra 10/4

1.) $4x + 6y - 2z$ $\quad x = 3 \quad y = 4 \quad z = 5$

$4(3) + 6(4) - 2(5)$

$12 + 24 - 10$

$36 - 10 = \boxed{26}$

1.) $7p + q(3+r)$ $\quad p = 3 \quad q = 2 \quad r = 4$

$7(3) + 2(3+4)$

$7(3) + 2(7)$

$21 + 14 = \boxed{35}$

2.) $\frac{36}{j} - 4(k+m)$ $\quad j = 2 \quad k = 1 \quad m = 3$

$\frac{36}{2} - 4(1+3)$

$\frac{36}{2} - 4(4)$

$18 - 4(4)$

$18 - 16 = \boxed{2}$

Absolute value → distance from a number to Ø on the number line

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

Compare using $>$ $<$ $=$

greater than less than

$-1 < 2$

1.) $|-3| \geq |-1|$
$3 > 1$

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

3.) $|2| \leq |-3|$
$2 < 3$

4.) $-3 \geq -5$

5.) $5 \geq |-4|$
$5 > 4$

6.) $-6 \leq -4$

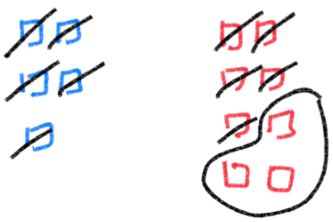
7.) $|-2| \leq 3$
$2 < 3$

8.) $4 \geq |-2|$
$4 > 2$

Adding Integers

if signs are different, take their difference

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



$\oplus$ $\ominus$

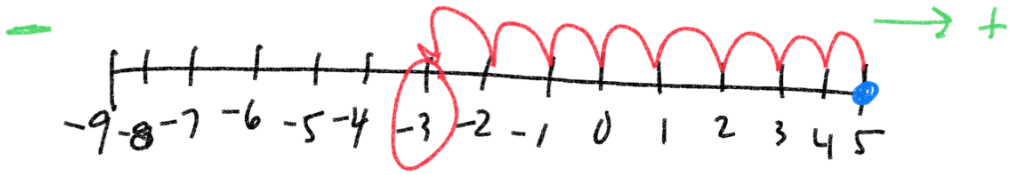
$5 \boxed{+} (-8)$

forward or backward

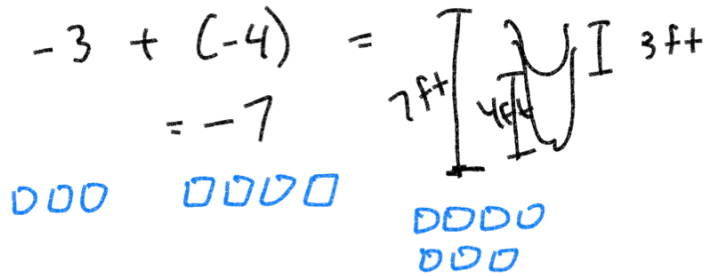
$8 - 5 = 3$

start

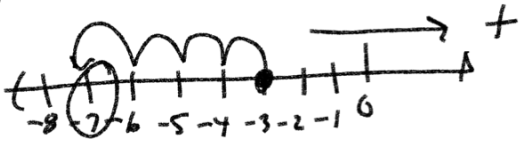
direction $\boxed{-3}$



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



same signs, take their sum



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

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

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

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

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

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

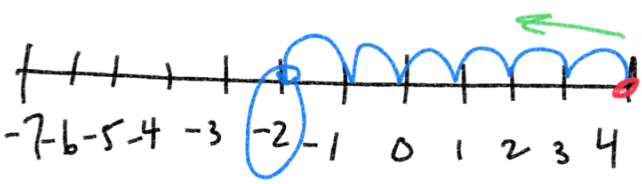
7.) $-8 + 4 = \boxed{-4}$

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

$4 - 6 = 4 + (-6) = -2$

$4 - 6 = -2$

direction

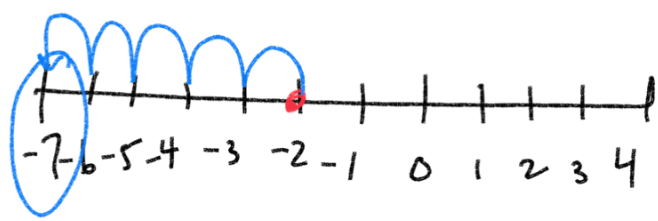


$-2 - 5 = -7$

forward

left

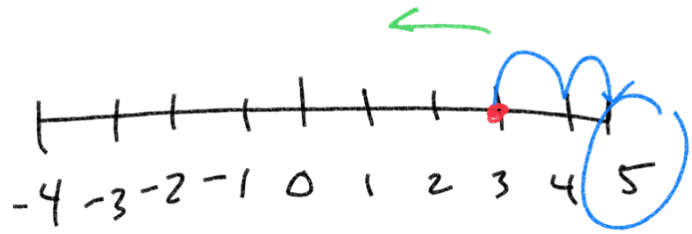
$-2 + (-5) = -7$



$3 - (-2) = 5$

left

2 backward



$3 - (-2)$

$3 + +2 = \boxed{5}$

$-5 - 3 = -8$

$-5 + (-3)$

$5 - 3 = 2$

$5 - (-3)$

$5 + +3 = 8$

$-5 - (-3)$

$-5 + +3 = -2$

$9 - (-6)$

$9 + (+6) = 15$

$-9 - (-6)$

$-9 + 6 = -3$

$9 - 6$

3

$-9 - 6$

$-9 + (-6) = -15$

$-9 + (-6) = -15$

$-8 - 7$

$= -15$

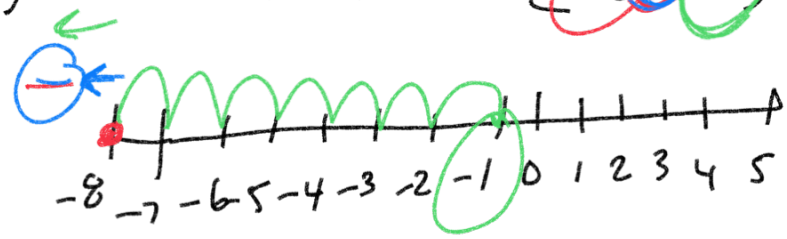
$8 - (-7)$

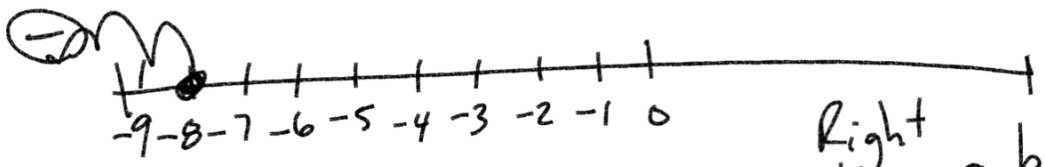
$8 + +7$

15

$8 - 7$

$\{-8 - (-7)\}$





$6 - (-3) = 9$

Right

backwards

$-8 + (-7)$

left

backwards

$-8 - (-7)$