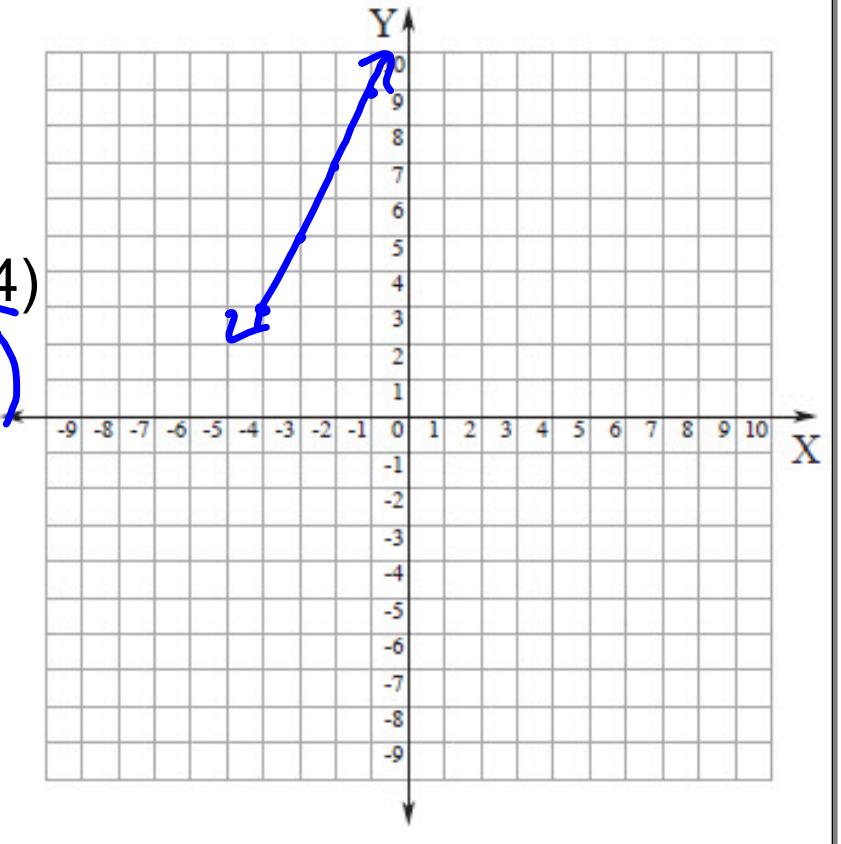
Warm up

1) $y - 3 = 2(x + 4)$

Pt = (-4, 3)

$M = \frac{2}{1}$



3-3: Solving Inequalities

Objectives: I can solve a multi-step inequality

Vocab

$3 < 5$ Greater than or less than $5 > 3$

$4 \leq 4$ Greater than or less than + equal to $\geq$

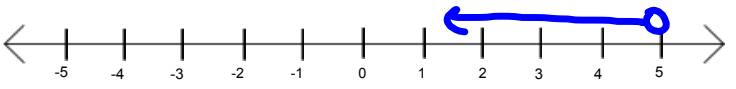
REVIEW:

○ < >

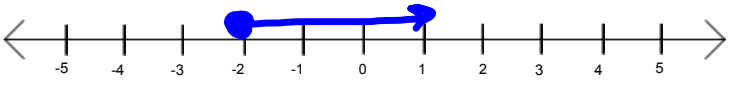
● ≤ ≥

Graph the inequalities on a number line

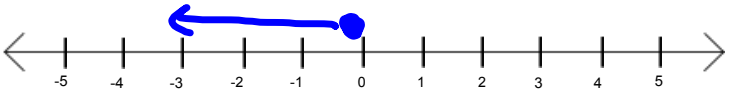
$x < 5$



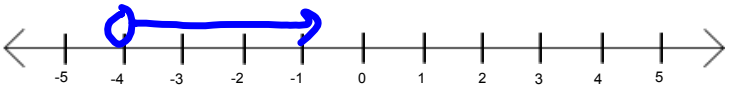
$x \geq -2$



$x \leq 0$



$x > -4$



Solve $k - 17 = -3$

$+17 \quad +17$

$k = 14$

Solve $k - 17 < -3$

$+17 \quad +17$

$k < 14$

$$\frac{n}{15} < -14$$

$n < -210$

$$8 + m \leq -1$$
$$-8 \qquad -8$$
$$m \leq -9$$

$$\frac{-17}{-17} \geq \frac{-17r}{-17}$$

$$1 \leq r$$

$$-122 \leq 4 - 7p$$

$$-4 \quad -4$$

$$-126 \leq -7p$$

$$\frac{-126}{-7} \leq \frac{-7p}{-7}$$

$$18 \geq p$$

$$-3 > \frac{b}{4} - 5$$

$+5 \quad +5$

$4 \cdot 2 > \frac{b}{4} \cdot 4$

$8 > b$

$$3 \cdot 5 \geq \frac{x-1}{3} \cdot 3$$

$15 \geq x - 1$

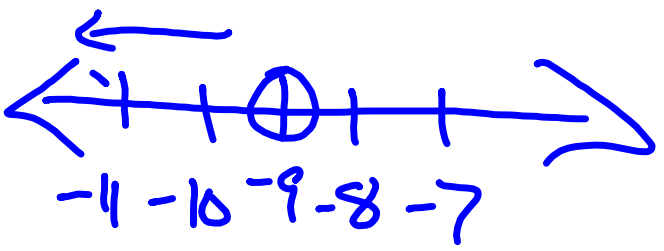
$+1 \quad +1$

$16 \geq x$

$< > \text{O}$

$\leq \geq$ ●

$-9 > n \Rightarrow n < -9$



$$-4-3p \geq 26$$
$$+4 \qquad +4$$
$$-3p \geq 30$$
$$+3p \qquad +3p$$
$$0 \geq 30+3p$$
$$-30 \qquad -30$$

$$\frac{-3p}{-3} \geq \frac{30}{-3}$$
$$p \leq -10$$

$$\frac{-30}{3} \geq \frac{3p}{3}$$
$$-10 \geq p$$