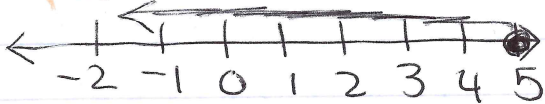


Pg. 175 (#33-44)

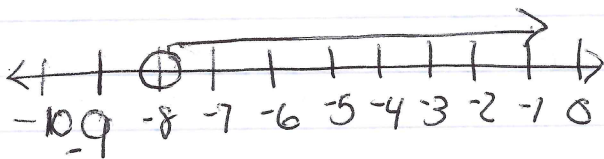
(33) $x + 5 \leq 10$
 $\quad -5 \quad -5$

$x \leq 5$



(34) $n + 6 > -2$
 $\quad -6 \quad -6$

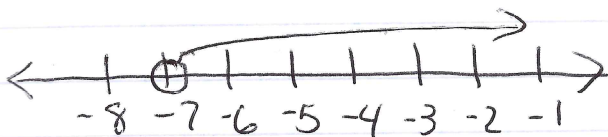
$n > -8$



(35) $2 < 9 + c$

Rewrite: $9 + c > 2$
 $\quad -9 \quad -9$

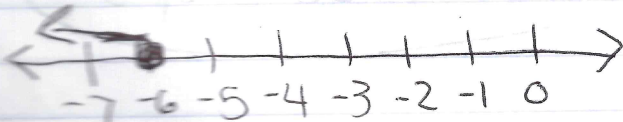
$c > -7$



(36) ~~to~~ $-1 \geq 5 + b$

Rewrite: $5 + b \leq -1$
 $\quad -5 \quad -5$

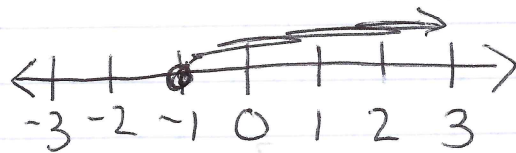
$b \leq -6$



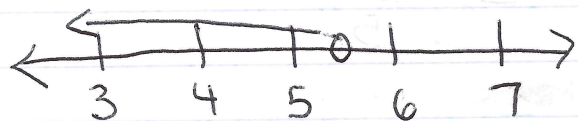
(37) $\frac{1}{4} + a \geq -\frac{3}{4}$
 $\quad -\frac{1}{4} \quad -\frac{1}{4}$

$a \geq -\frac{4}{4}$

$a \geq -1$



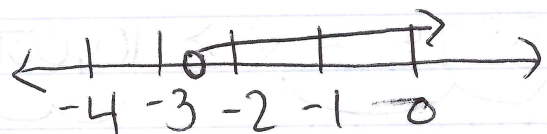
(38) $8.6 + z < 14$
 $\quad -8.6 \quad -8.6$
 $z < 5.4$



(39) $\frac{1}{3} < n + 3$

Rewrite: $n + 3 > \frac{1}{3}$

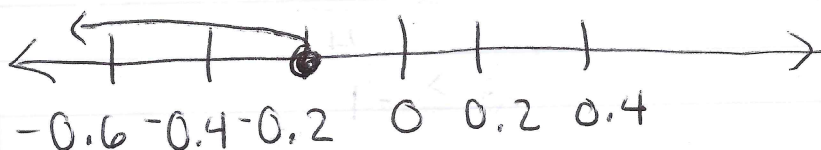
$n > -2\frac{2}{3}$



$$(40) 3.8 \geq b + 4$$

Rewrite: $b + 4 \leq 3.8$

$$b \leq -0.2$$

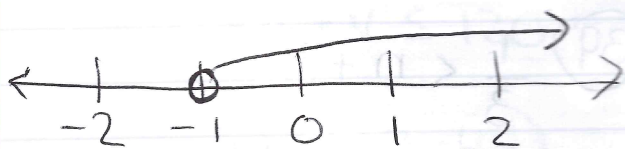


$$(41) \frac{3}{5} + d \geq -\frac{2}{5}$$

$$-\frac{3}{5} + d \geq -\frac{2}{5} - \frac{3}{5}$$

$$d \geq -\frac{5}{5}$$

$$d \geq -1$$



(42) at least 10,000/day
greater than or equal to

$$\underbrace{5274 + x}_{\text{total walked}} \geq \underbrace{10,000}_{\text{goal}}$$

$$x \geq 4,726 \text{ steps}$$

43 ^{Sell} at least 10 gardens
(greater than or equal to)

\geq

$$\underbrace{3+4+x}_{\text{total sold}} \geq \underset{\substack{\uparrow \\ \text{goal}}}{10}$$

$$7+x \geq 10$$

$$\begin{array}{r} -7 \\ -7 \end{array}$$

$x \geq 3$ gardens

44 $20 + 100 + x \leq 250$ OR $250 - 100 - 20 \leq x$

$$120 + x \leq 250$$

$$\begin{array}{r} -120 \\ -120 \end{array}$$

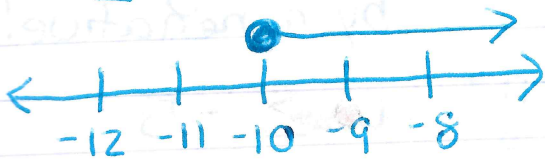
$x \leq \$130$

$$130 \leq x$$

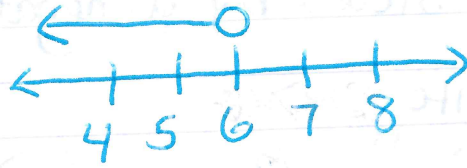
$$x \leq \$130$$

Either way works

⑦ $\frac{x}{5} \geq -2 \cdot \frac{5}{1}$
 $x \geq -10$



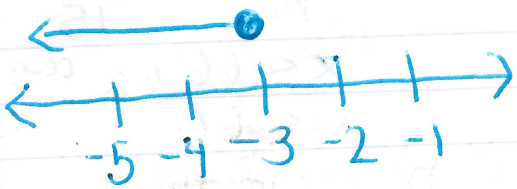
⑧ $\frac{w}{6} < 1 \cdot \frac{6}{1}$
 $w < 6$



⑪ $-\frac{v}{2} \geq 1.5 \cdot \frac{-2}{1}$

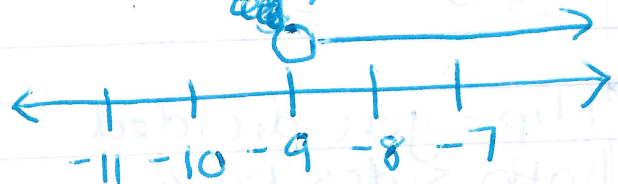
* Multiplied by a negative (flip sign!)

$v \leq -3$



⑫ $-3 < \frac{x}{3} = \frac{3}{1}$

$-9 < x$
 Rewrite: $x > -9$



⑬ $-\frac{3}{4} < -\frac{3}{8}m \times -\frac{8}{3}$

* Multiplying by a negative, FLIP signs!

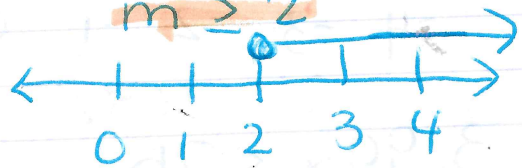
~~⑭~~ $\frac{+24}{12} > m$
 $2 > m$

Rewrite $m < 2$



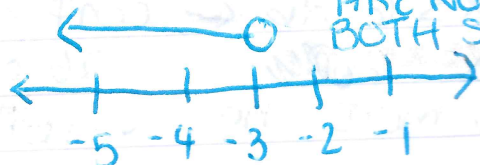
⑰ $\frac{3m}{3} \geq \frac{6}{3}$

$m \geq 2$



⑱ $\frac{4t}{4} < \frac{-12}{4}$
 $t < -3$

* NO FLIP BECAUSE YOU ARE NOT DIVIDING BOTH SIDES BY NEG

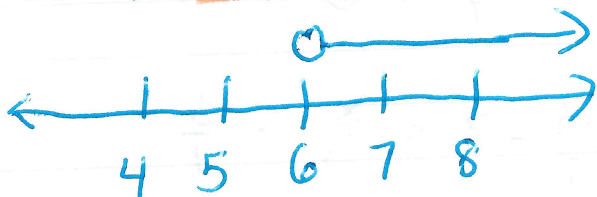


$$(21) \frac{-30}{-5} > \frac{-5c}{-5}$$

$$6 < c$$

* Flip - you divided both sides by a negative

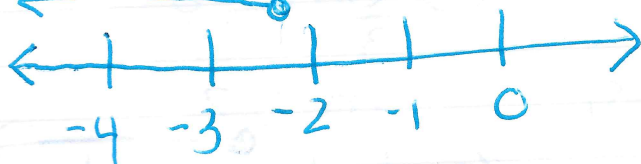
Rewrite $c > 6$



$$(26) \frac{-7y}{-7} \geq \frac{17}{-7}$$

* Flip - you divided both sides by a negative.

$$y \leq -\frac{17}{7} \text{ or } y \leq -2\frac{3}{7}$$



$$(32) 3.99x \leq 25$$

keyword: at most

$$\frac{3.99x}{3.99} \leq \frac{25}{3.99}$$

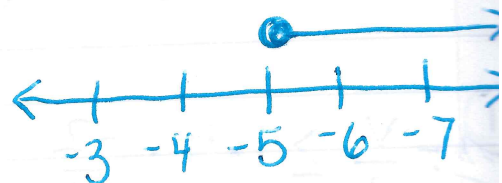
$x \leq 6.26$ ← can't have .26 of a fish

$$x \leq 6$$

$$(22) \frac{-4w}{-4} \leq \frac{20}{-4}$$

* FLIP: you are dividing both sides by a negative!

$$w \geq -5$$



$$(31) .15x \leq 10$$

keyword: no more than

$$\frac{.15x}{.15} \leq \frac{10}{.15}$$

$$x \leq 66.6 \leftarrow \text{can't ser of}$$

$$x \leq 66$$

no more than 66 texts

45) If $x > 3$ and $y < 1$, then $xy > 0$

Sometimes TRUE

Example if $x = 4$ and $y = .5$ $4(.5) = 2$
 $2 > 0$

FALSE

if $x = 4$ and $y = -2$ $4(-2)$
 -8 is not greater than 0

46) If $x < 0$ and $y < 0$, then $xy > 0$
ALWAYS TRUE! The product of two positives is always greater than 0 .

47) If $x \geq 0$ and $y > 1$, then $xy > 0$

Sometimes

TRUE $\rightarrow x = 1, y = 2$

FALSE $\rightarrow x = 0, y = 2$ $0(2) = 0$ 0 is not greater than 0

48) If $x > 0$ and $y \geq 0$, then $xy > 0$

Sometimes

TRUE $\rightarrow x = 2, y = 2$ $2(2) = 4 > 0$ ✓

FALSE $\rightarrow x = 2, y = 0$ $2(0) = 0$ 0 is not greater than 0 .