

HW: Worksheet/18-32 even

**Warm up:**

Solve and graph.

$$|x| > 4$$

$$x < -4 \text{ or } x > 4$$

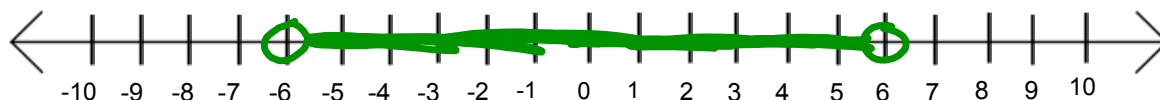


$$1 - (3 - 2x) \quad 18$$

$$|x| < 6$$

$$x > -6 \text{ and } x < 6$$

$$-6 < x < 6$$



1x1

# HW Solutions

$$6 - |2 - p| \leq 4$$

$$\therefore |2 - p| \leq 2$$

$$|2 - p| \geq 2$$

$$2 - p \geq 2$$

$$-p \geq 0$$

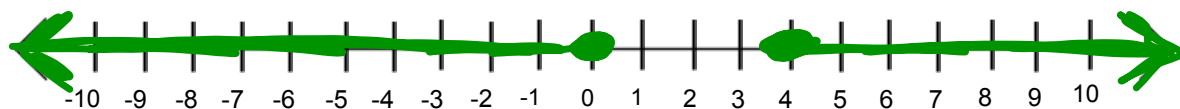
$$p \leq 0$$

or  $2 - p \leq -2$

$$-p \leq -4$$

$$p \geq 4$$

$p \leq 0$  or  $p \geq 4$



$$\left| 1 - (3 - 2x) \right| < 18$$

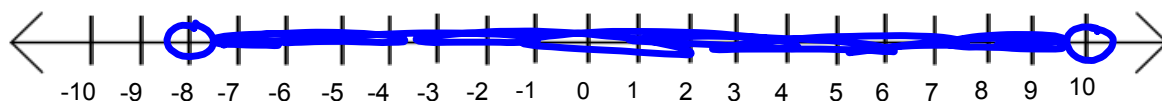
$$-18 < 1 - (3 - 2x) < 18$$

$$-18 < 1 - 3 + 2x < 18$$

$$\frac{-18}{2} < \frac{-2 + 2x}{2} < \frac{18}{2}$$

$$\begin{array}{ccc} -9 < -1 + x < 9 \\ \uparrow & \downarrow & \uparrow \\ -8 & & 10 \end{array}$$

$$\underline{-8 < x < 10}$$



$$\underset{-5}{5} - 4|2 - 3t| > \underset{-5}{21}$$

$$\frac{-4|2-3t|}{-4} > \frac{16}{-4}$$

$$|2-3t| < -4$$

no solution



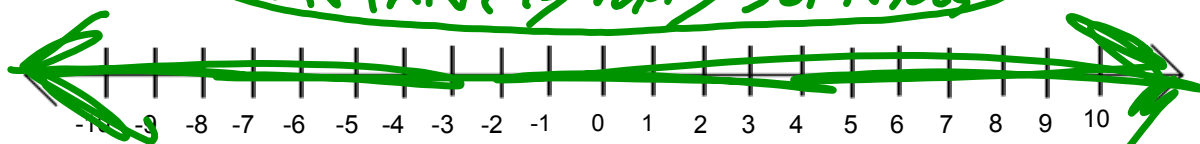
$$|2 - 3t| > -4$$

$$|2 - 3t| \geq 0$$

$$\frac{2 - 3t \geq 0}{-3t \geq -2} \quad \text{or} \quad \frac{2 - 3t \leq 0}{-3t \leq -2}$$

$$t \leq \frac{2}{3} \quad \text{or} \quad t \geq \frac{2}{3}$$

Indinitely many solutions





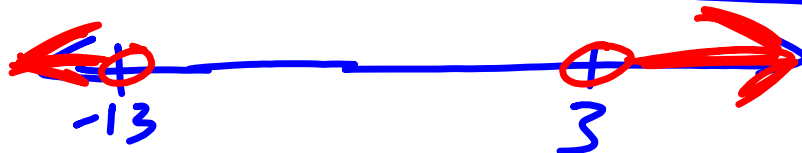
pg. 485/19, 21, 27, 29, 33

19)

$$|y + 5| > 8$$

$$\frac{y+5}{-5} > 8 \quad \text{or} \quad \frac{y+5}{-5} < -8$$

$$y > 3 \quad \text{or} \quad y < -13$$



21)

$$|6 - p| \leq 2$$

$$\begin{array}{r} -2 \leq 6 - p \leq 2 \\ -6 \quad -6 \quad -6 \\ \hline -8 \leq -p \leq -4 \\ -1 \quad -1 \quad -1 \\ \hline 8 \geq p \geq 4 \end{array}$$



27)

$$|2 - z| + 3 > 8$$

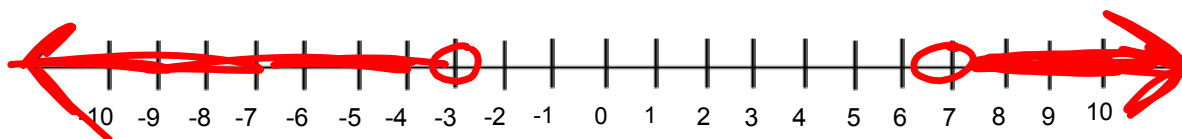
$$\frac{-3 \quad -3}{|2 - z| > 5}$$

$$\frac{2 - z > 5}{-2} \quad \text{or} \quad \frac{2 - z < -5}{-2}$$

$$\frac{-z > 3}{-1}$$

$$\frac{-z < -7}{-1}$$

$$z < -3 \quad \text{or} \quad z > 7$$



29)

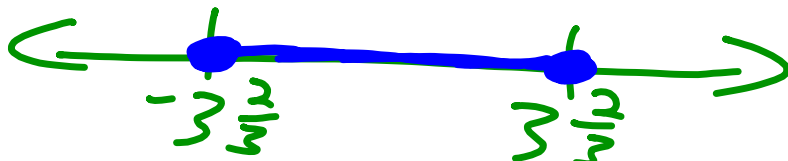
$$4 - 3|r| \geq -7$$

$$\begin{array}{r} -4 \qquad \qquad \qquad -4 \\ \hline \end{array}$$

$$\begin{array}{r} -3|r| \geq -11 \\ \hline -3 \qquad \qquad \qquad -3 \\ \hline \end{array}$$

$$|r| \leq \frac{11}{3}$$

$$-3\frac{2}{3} \leq r \leq 3\frac{2}{3}$$



33)

$$2(3|a| - 1) \leq 10$$



