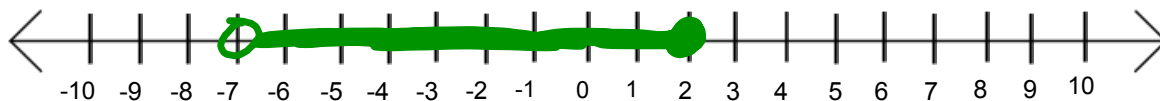


Warm up:

Solve and graph.

$$\begin{array}{r}
 -1 \leq 5 - 3x < 26 \\
 \underline{-5 \quad -5 \quad \quad \quad -5} \\
 -6 \leq -3x < 21 \\
 \underline{-3 \quad -3 \quad -3} \\
 2 \geq x > -7
 \end{array}$$

$-7 < x \leq 2$



HW Solutions

③

$$+ < 75 \text{ or } + > 90$$

(13) $22 \geq 4m - 2$ or $5 - 3m \leq -13$

$$\frac{22}{+2} \geq \frac{4m - 2}{+2} \quad \text{or} \quad \frac{5 - 3m}{-5} \leq \frac{-13}{-5}$$

$$\frac{24}{4} \geq \frac{4m}{4} \quad \text{or} \quad \frac{-3m}{-3} \leq \frac{-18}{-3}$$

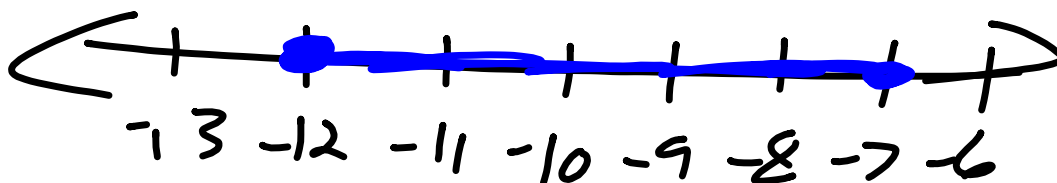
$$6 \geq m \quad \text{or} \quad m \geq 6$$

$m \leq 6$ or

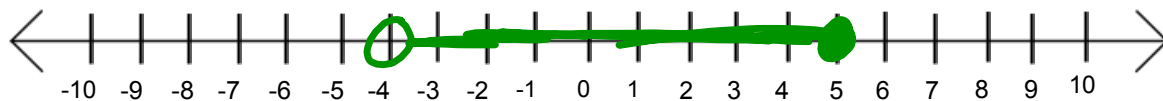
infinitely many solutions

$$\textcircled{2} \quad \begin{array}{l} n + 2 \leq -5 \\ -2 \quad -2 \end{array} \text{ and } \begin{array}{l} n + 6 \geq -6 \\ -6 \quad -6 \end{array}$$

$$n \leq -7 \text{ and } n \geq -12$$



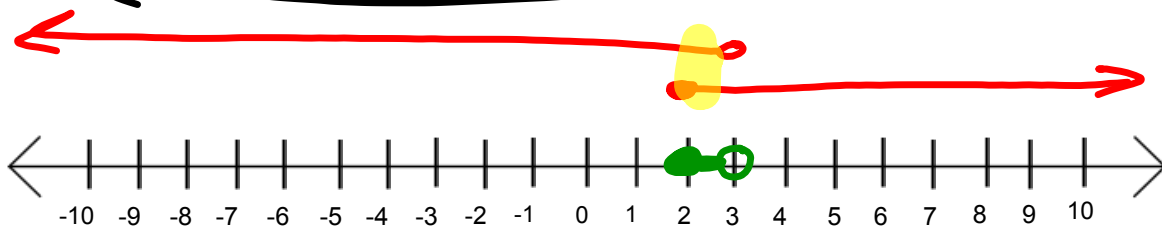
$$\begin{array}{l} \text{Q10} \quad -5 < 3p + 7 \leq 22 \\ \quad \quad \quad -7 \quad \quad \quad -7 \quad \quad \quad -7 \\ \hline \quad \quad \quad -12 < 3p \leq 15 \\ \quad \quad \quad \frac{-12}{3} < \frac{3p}{3} \leq \frac{15}{3} \\ \hline \quad \quad \quad -4 < p \leq 5 \end{array}$$



$$\textcircled{12} \quad 5h - 4 \geq 6 \quad \text{and} \quad 7h + 11 < 32$$

$$\begin{array}{r} +4 \quad +4 \\ \hline 5h \geq 10 \\ \hline \leq \quad \leq \\ \hline h \geq 2 \end{array} \quad \begin{array}{r} -11 \quad -11 \\ \hline 7h < 21 \\ \hline \geq \quad \geq \\ \hline h < 3 \end{array}$$

$h \geq 2 \quad \text{and} \quad h < 3$



$$\begin{array}{r}
 \textcircled{14} \quad -4a + 13 \geq 29 \quad \text{and} \quad 10 < 6a - 14 \\
 \quad \quad \quad -13 \quad -13 \qquad \quad \quad +14 \qquad \quad +14 \\
 \hline
 \quad \quad \quad -4a \geq 16 \qquad \quad \quad \frac{24 < 6a}{6 \quad 6} \\
 \quad \quad \quad -4 \quad -4 \qquad \quad \quad \hline
 \quad \quad \quad \frac{4 < a}{4 < a} \\
 \hline
 a \leq -4 \quad \text{and} \quad a > 4 \\
 \hline
 \text{no solution}
 \end{array}$$



$$\textcircled{8} \quad \begin{array}{c} y-1 \geq 7 \\ +1 \quad +1 \end{array} \quad \text{or} \quad \begin{array}{c} y+3 < -1 \\ -3 \quad -3 \end{array}$$

$$y \geq 8 \quad \text{or} \quad y < -4$$



Solve and graph

3. $5 - 3a > 19 - a$ **and** $23 + 11a \leq 37 - 3a$

4. $-7 \leq 10x - 7 \leq 43$

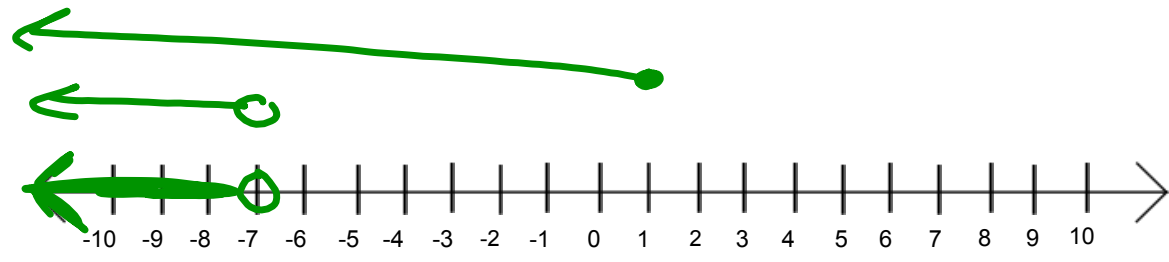
7. $\frac{x-8}{-2} \leq 5$ **and** $\frac{x-8}{-2} \geq 5$

10. $2p - 3(2p - 3) > 1$ **or** $5 - 2(7p + 1) > 8p - 2(11p + 1)$

3. $5 - 3a > 19 - a$ and $23 + 11a \leq 37 - 3a$

$$\frac{-14 + 3a}{2} > \frac{-14 + 3a}{2} \qquad \frac{-23 + 3a}{14} \leq \frac{-23 + 3a}{14}$$

$-7 > a$ and $a \leq 1$

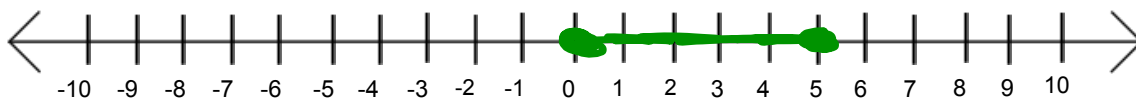


$$4. -7 \leq 10x - 7 \leq 43$$

$$\begin{array}{ccc} +7 & +7 & +7 \\ \hline \end{array}$$

$$\frac{0}{10} \leq \frac{10x}{10} \leq \frac{50}{10}$$

$$0 \leq x \leq 5$$

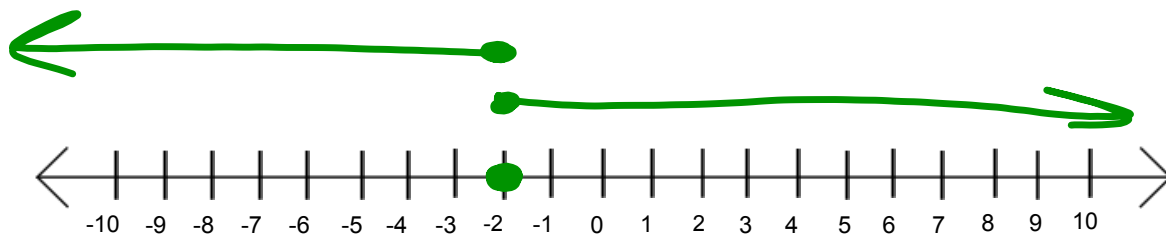


$$\frac{x-8}{-2} \leq 5 \text{ and } \frac{x-8}{-2} \geq 5$$

$$\begin{array}{r} x-8 \geq -10 \\ +8 \quad +8 \end{array}$$

$$\begin{array}{r} x-8 \leq -10 \\ +8 \quad +8 \end{array}$$

$$x \geq -2 \text{ and } x \leq -2$$



$$10. \quad 2p - 3(2p - 3) > 1 \quad \text{or} \quad 5 - 2(7p + 1) > 8p - 2(11p + 1)$$

$$2p - 6p + 9 > 1$$

$$\begin{array}{r} -4p + 9 > 1 \\ -9 \quad -9 \end{array}$$

$$\hline -4p > -8$$

$$\begin{array}{r} -4 \quad -4 \end{array}$$

$$\hline p < 2$$

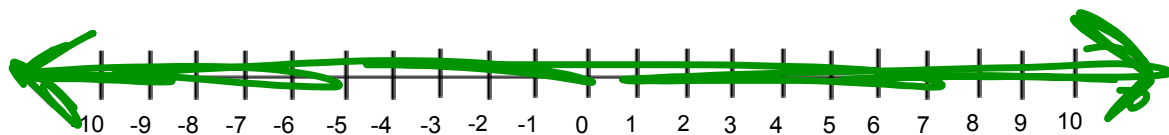
$$5 - 14p - 2 > 8p - 22p - 2$$

$$\begin{array}{r} -14p + 3 > -14p - 2 \\ +14p \quad \quad +14p \end{array}$$

$$\hline 3 > -2$$

or

infinitely many solutions



March 7, 2022

