

1. $2x - 3 = 7$

$$\begin{array}{l} +3+3 \\ \hline 2x = 3+7 \end{array} \quad \boxed{x=5}$$

$$\frac{2x}{2} = \frac{10}{2}$$

3. $2 - x = 5$

$$\begin{array}{l} -2 \\ \hline -x = 3 \end{array}$$

$$\boxed{x = -3}$$

$$\begin{array}{l} -x = 3 \\ \hline -1 \quad -1 \end{array}$$

2. $4 = 3x + 1$

$$\begin{array}{l} -1-1 \\ \hline 3 = 3x \end{array} \quad \boxed{x=1}$$


4. $-4 = 8 - 2x$

$$\begin{array}{l} -8-8 \\ \hline -12 = -2x \end{array}$$

$$6 = x$$

Looking at problem 1 from the warm up, what if we changed the equals sign to a greater than sign?

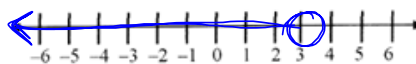
How would we solve this:

$$\begin{array}{r} 2x - 3 > 7 \\ + 3 \quad + 3 \\ \hline 2x > 10 \\ \frac{2x}{2} > \frac{10}{2} \end{array}$$


$$x > 5$$

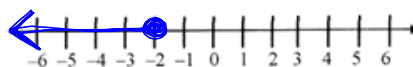
1. $3x + 4 < 13$

$$\begin{array}{r} -4 \quad -4 \\ \hline 3x < 9 \\ \hline x < 3 \end{array}$$

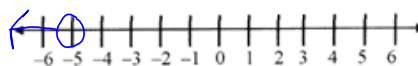


2. $4 \geq 8 + 2x$

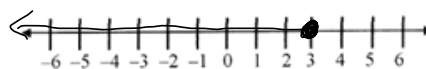
$$\begin{array}{r} -8 \quad -8 \\ \hline -4 \geq 2x \\ \hline \frac{-4}{2} \geq \frac{2x}{2} \quad x \leq -2 \\ -2 \geq x \end{array}$$



$$\begin{array}{r}
 3. \quad 7 > 12 + x \\
 \underline{-12} \quad \underline{-12} \\
 -5 > x \\
 x < -5
 \end{array}$$



$$\begin{array}{r}
 4. \quad \cancel{2} + 6x \leq 16 \\
 \quad \quad \quad \underline{+2} \\
 6x \leq 18 \\
 \underline{6} \quad \quad \underline{6} \\
 x \leq 3
 \end{array}$$



Complete the 8 problems on the worksheet.

$$\textcircled{3} \frac{x-4}{2} > 3 \cdot 2$$
$$x-4 > 6$$
$$x > 10$$

What happens when our variable is negative?

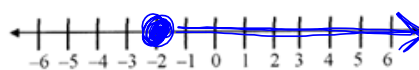
$$\frac{-3x}{-3} > \frac{6}{-3}$$

$$x < -2$$



1. $8 - 2x \leq 12$

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



2. $7 \geq -5x - 13$

