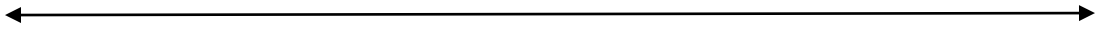


# Yellow: Multi-Step Inequalities

Name \_\_\_\_\_

1. Solve and Graph your solution set.

$$5(-2 + x) < 3x + 2$$



Name \_\_\_\_\_

2. Solve and Graph your solution set.

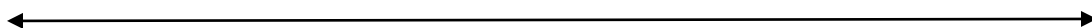
$$-7(x + 1) > -9 - 5x$$



Name\_\_\_\_\_

3. Solve and Graph your solution set.

$$5 + 4x \geq x + 8$$



Name\_\_\_\_\_

4. Solve and Graph your solution set.

$$-30 + 5x \leq 4(8x + 6)$$

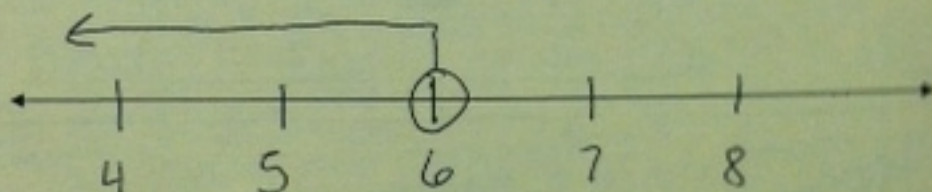


# Yellow: Multi-Step Inequalities

Name Key

1. Solve and Graph your solution set.

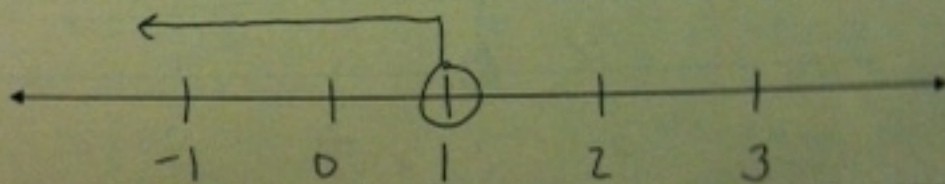
$$\begin{array}{r} 5(-2+x) < 3x+2 \\ -10+5x < 3x+2 \\ +10 \quad \quad +10 \\ \hline 5x < 3x+12 \\ -3x \quad -3x \\ \hline 2x < 12 \\ \frac{2x}{2} < \frac{12}{2} \end{array} \quad \boxed{x < 6}$$



Name Key

2. Solve and Graph your solution set.

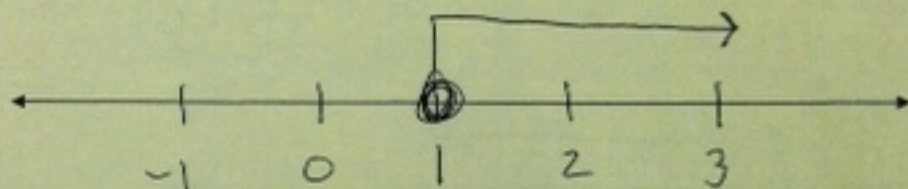
$$\begin{array}{r} -7(x+1) > -9-5x \\ -7x-7 > -9-5x \\ +7x \quad \quad +7x \\ \hline -7 > -9+2x \\ +9 \quad \quad +9 \\ \hline 2 > 2x \\ \frac{2}{2} > \frac{2x}{2} \end{array} \quad \boxed{1 > x \text{ or } x < 1}$$



Name Key

3. Solve and Graph your solution set.

$$\begin{array}{r|l}
 5 + 4x & \geq x + 8 \\
 -x & -x \\
 \hline
 5 + 3x & \geq 8 \\
 -5 & -5 \\
 \hline
 3x & \geq 3 \\
 \frac{3x}{3} & \geq \frac{3}{3} \\
 x & \geq 1
 \end{array}$$

Name Key

4. Solve and Graph your solution set.

$$\begin{array}{r|l}
 -30 + 5x & \leq 4(8x + 6) \\
 -30 + 5x & \leq 32x + 24 \\
 -5x & -5x \\
 \hline
 -30 & \leq 27x + 24 \\
 -24 & -24 \\
 \hline
 -54 & \leq 27x \\
 \frac{-54}{27} & \leq \frac{27x}{27} \\
 -2 & \leq x
 \end{array}$$

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

