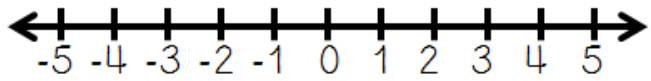
< > ≤ ≥ < > ≤ ≥ < > ≤ ≥ < > ≤ ≥

Graphing & Solving

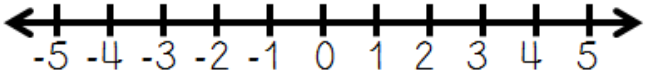
Inequalities

< > ≤ ≥ < > ≤ ≥ < > ≤ ≥ < > ≤ ≥

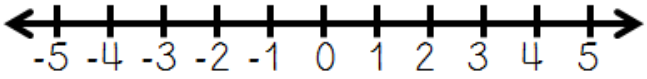
$x < 0$



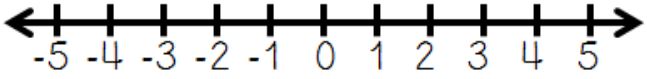
$x > 0$



$x \leq 0$



$x \geq 0$



$< >$	$\leq \geq$	$< \leq$	$> \geq$

Example 4:

$$\frac{x}{13} - 10 < -8$$

Example 5:

$$-18 + \frac{x}{4} \geq -30$$

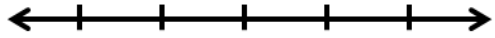
Example 6:

$$\frac{1}{3} + \frac{x}{18} < \frac{1}{2}$$

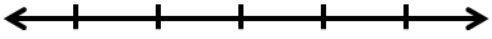
Solving Two-Step Inequalities

Solve & graph.

Example 1:

$4x + 1 \leq 13$ 

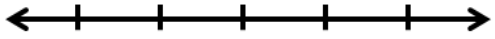
Example 2:

$-9x + 7 \geq 25$ 

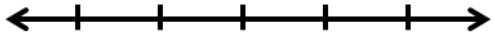
Example 3:

$-36 > 6x + 12$ 

Example 1:

Graph $x \leq 3$. 

Example 2:

Graph $x > -2$. 

Example 3:

Graph $x \geq 6$. 

Graphing Inequalities

One-Step Inequalities Involving **Addition & Subtraction**

Example 1:

$x + 7 > 13$

Example 2:

$x - 8 \leq -19$

Example 3:

$x + 6 \geq -21$

Example 4:

$11 < x - 5$

One-Step Inequalities Involving **Multiplication & Division**

Example 5:

$6x \leq -42$

Example 6:

$-7x > 63$

Example 7:

$\frac{x}{4} > -6$

Example 8:

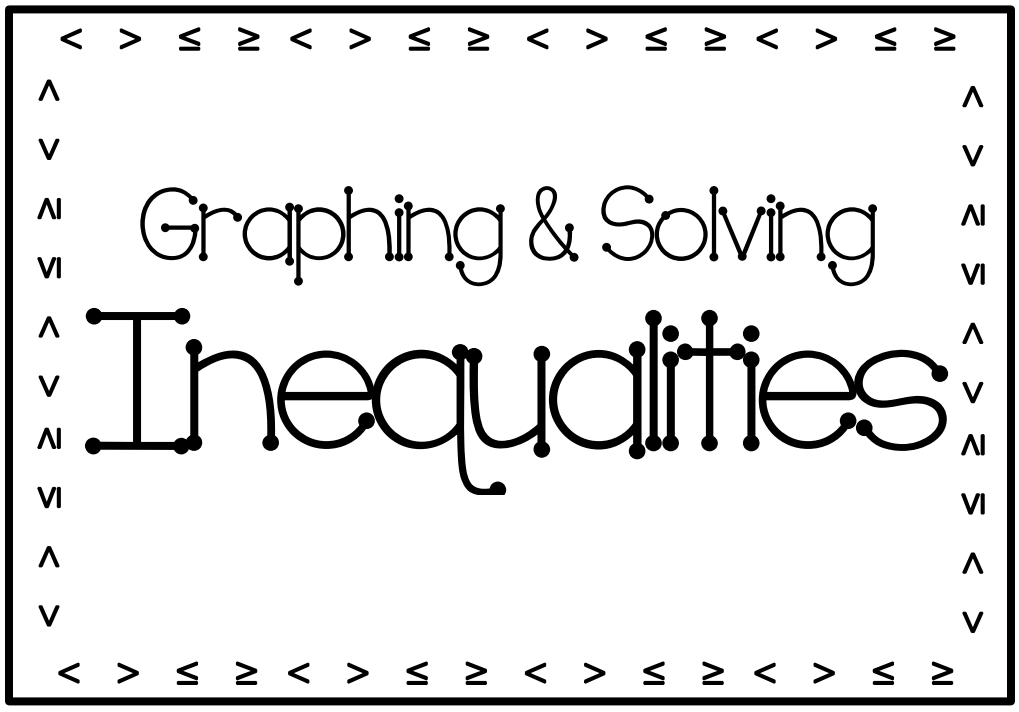
$-9 \leq \frac{x}{-3}$

Remember: _____

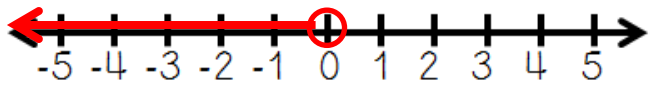
_____

Solving One-Step Inequalities

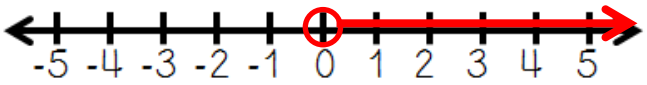
Answer Key!



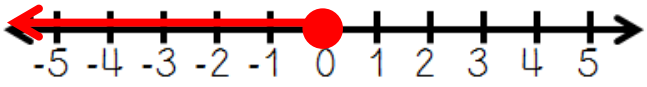
$x < 0$



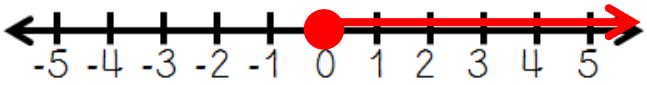
$x > 0$



$x \leq 0$



$x \geq 0$



$< >$	$\leq \geq$	$< \leq$	$> \geq$
"Open Circle"	"Closed Circle"	Arrow points LEFT	Arrow points RIGHT

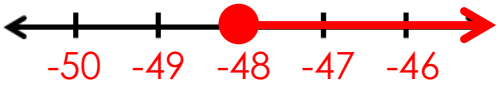
Example 4:

$$\frac{x}{13} - 10 < -8$$

$x < 26$

Example 5:

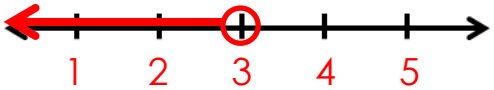
$$-18 + \frac{x}{4} \geq -30$$



$x \geq -48$

Example 6:

$$\frac{1}{3} + \frac{x}{18} < \frac{1}{2}$$



$x < 3$

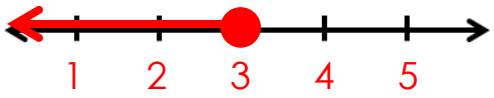
Solving Two-Step Inequalities

Solve & graph.

Example 1:

$4x + 1 \leq 13$

$x \leq 3$



Example 2:

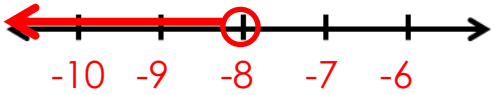
$-9x + 7 \geq 25$

$x \leq -2$

Example 3:

$-36 > 6x + 12$

$x < -8$



Example 1:

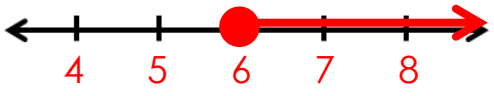
Graph $x \leq 4$.

Example 2:

Graph $x > -2$.

Example 3:

Graph $x \geq 6$.



Graphing Inequalities

One-Step Inequalities Involving
Addition & Subtraction

Example 1:

$x + 7 > 13$

$x > 6$

Example 2:

$x - 8 \leq -19$

$x \leq -11$

Example 3:

$x + 6 \geq -21$

$x \geq -27$

Example 4:

$11 < x - 5$

$x > 16$

One-Step Inequalities Involving
Multiplication & Division

Example 5:

$6x \leq -42$

$x \leq -7$

Example 6:

$-7x > 63$

$x < -9$

Example 7:

$\frac{x}{4} > -6$

$x > -24$

Example 8:

$-9 \leq \frac{x}{-3}$

$x \leq 27$

Remember: When multiplying or dividing by a negative, you must flip the inequality symbol!

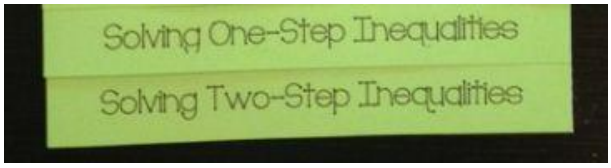
Solving One-Step Inequalities

Directions

Step 1: Print pages 1 & 2, 3 & 4 front to back (flip along the long edge) so that the information is facing in opposite directions.

Step 2: Cut off the extra piece along the dotted line on the right hand side.

Step 3: Line up the two sheets, as shown below.



Step 4: Fold over the top portion and secure with a few staples at the top.

The final product should look like this: