Name _____ Date _____

SOLVING ONE-STEP INEQUALITIES

You can solve an inequality by using inverse operations to isolate the variable. Take a closer look at the examples below.

$$n + 3 \leq 9$$
$$-3 \quad -3$$
$$n \leq 6$$

To get *n* by itself, subtract 3 from both sides of the inequality.

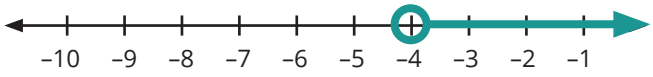
When you graph this solution set, any value less than or equal to 6 makes the inequality true.

$$\frac{-2m}{-2} < \frac{8}{-2}$$
$$m > -4$$

To get *m* by itself, divide both sides by −2.

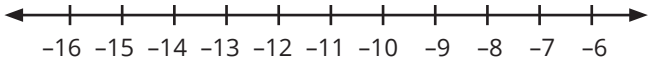
Be careful: If you multiply or divide by a negative number, you must flip the inequality sign!

When you graph this solution set, any value greater than −4 makes the inequality true.

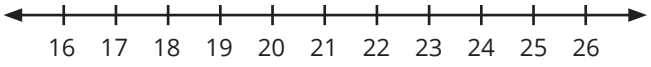


Solve each inequality. Then graph the solution set on the number line.

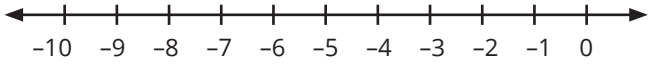
$x - 6 \geq -14$



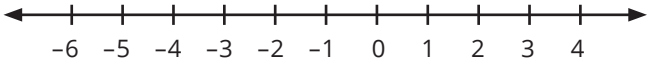
$\frac{k}{-4} > -5$



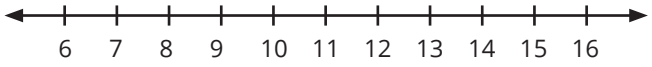
$3p \leq -21$



$-8j < 16$



$y - 3.25 > 6.75$



$z + \frac{1}{2} \geq -\frac{1}{2}$