

- Use same steps as if you were solving an equation
- If you divide both sides of the inequality by a negative number - reverse the inequality sign
- Graph the simplified inequality

Example

Solve and graph the solution $-2(4x + 1) < 10$

$$\begin{aligned} -2(4x + 1) &< 10 \\ -8x - 2 &< 10 \\ \underline{+2 \quad +2} \end{aligned}$$

$$\begin{array}{rcl} -8x & < & 12 \\ \hline -8 & & -8 \end{array}$$

$$x > -\frac{12}{8} \quad \left(\text{inequality sign reversed - divided both sides by negative number} \right)$$

$$\text{Graph} \rightarrow x > -\frac{3}{2}$$

