

Lesson 2-2 \rightarrow Inequalities with Variables on Both sides

Same rules as Equations... but you might have to turn sign around

$$2\left(\frac{7x+1}{2} > 4x-2\right)$$

$$7x+1 > 8x-4$$



$$8x-4 < 7x+1$$

$$\begin{array}{r} -7x \qquad \qquad -7x \\ 8x-4 < 7x+1 \end{array}$$

$$x-4 < 1$$

$$\begin{array}{r} +4 \qquad \qquad +4 \\ x-4 < 1 \end{array}$$

$$x < 5$$

Check I is $x=5$ where both sides are equal? **yes!**

Check II since $x < 5$, would $x=0$ work? **yes!**