

Solving Inequalities

7.7 using multiplication & division

EQ: How can you use multiplication and division to solve an inequality?

★ The goal is still to isolate the variable

★ If you do something to one side of the equal sign, you must do it to the other.
↳ balanced

Ask the 3 questions.

Example 1:

$$\frac{x}{5} \leq 2$$

① \times

② $\div 5$

③ $\times 5$

do this to both sides

$$\frac{x}{5} \times 5 \leq 2 \times 5$$

$$x \leq 10$$

$$x \leq 10$$



solutions

Side Work

$$\frac{5}{1} \times \frac{x}{5} = x$$

Example 2:

$$8x > 24$$

① \times

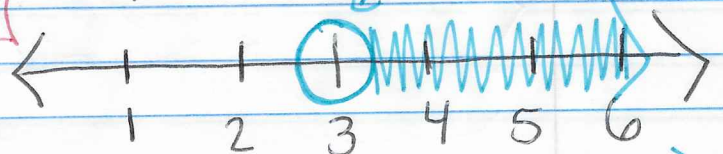
② $\times 8$

③ $\div 8$

$$\frac{8x}{8} > \frac{24}{8}$$

$$x > 3$$

$$x > 3$$



all of these numbers could be plugged into $x > 3$ and it would be true!