

## Solving inequalities:

Same process as solving and EQUATION

except:

When you multiply or divide both sides by a negative you **must**

**FLIP THE INEQUALITY SYMBOL.**

What can you do to simplify each?

$$\frac{3x+5}{x}$$

NOTHING

All three terms have nothing in common

$$\frac{\overset{\div 2}{(4x)} - \overset{\div 2}{(8)}}{\overset{\div 2}{(2x)} + \overset{\div 2}{(10)}} = \frac{2x-4}{x+5}$$

Since all four terms have a common factor of 2 you can simplify by dividing all by 2.

Graph each inequality on a number line

$$w > 3$$

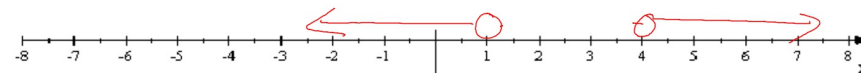


$$5 \geq c$$



$$c \leq 5$$

$$k < 1 \quad \text{or} \quad k > 4$$



$$-6 \leq a \leq 0 \quad a \geq -6 \quad \text{AND} \quad a \leq 0$$

