

Algebra /

Solving a linear inequality with multiple occurrences of the variable...

$$9y - 30 \geq 5y - 6$$

~~-5y~~ ~~-5y~~

$$4y - 30 \geq -6$$

~~+30~~ ~~+30~~

$$4y \geq 24$$

~~4~~ ~~4~~

$$y \geq 6$$



Inequalities

$<$ less than
 $\leq$ less than or equal to
 $>$ greater than
 $\geq$ greater than or equal to

$$-5u - 17 < 2u + 11$$

~~-2u~~ ~~-2u~~

$$-7u - 17 < 11$$

~~+17~~ ~~+17~~

$$\frac{-7u}{-7} < \frac{28}{-7}$$

$$u > -4$$

If divide (or multiply) by a negative
 FLIP THE SIGN!

Be careful: $\frac{2x}{2} \leq \frac{-14}{2}$

$$x \leq -7$$

Dividing by 2
 Do NOT flip the signs!