

4-10

## Lesson ~~4-10~~ → Substitution with Two Slope Intercept Equations

We can solve systems without graphs!

$$y = 5x - 5$$

$$y = 3x + 15$$

Two lines with different slopes ~~will cross~~  
will cross once... but where?

Substitute for  $y$ !

$$5x - 5 = 3x + 15$$

$$\begin{array}{r} -3x \\ -3x \end{array}$$

$$\begin{array}{r} 2x - 5 = 15 \\ +5 \quad +5 \end{array}$$

$$2x = 20$$

$$x = 10$$

Solve for "y" with "x=10"

$$y = 5x - 5$$

$$y = 5(10) - 5$$

$$y = 45$$

ANSWER (10, 45)