Remember

System Of Equations

2 Variables are missing and you need to use one of the following to find the point of intersection:

1) Graphing

- Must get each equation into y=mx+b form (Plot the y intercept, b, then use slope of rise/run to get the rest of the line)

OR → find x and y intercepts of Both lines and Plot to see where they overlap.

2) Substitution

- isolate one of the variable in either equation 1 or equation 2, call this equation 3

x = or y =

- Then sub that equation into the unused equation and solve for the numerical value of the variable

- then sub that value into equation 3 to get the numerical value of the last variable

3) Elimination

- Either add or Subtract multiples of the equations to eliminate one variable first and solve for the numerical value of the remaining variable.

What Method do you want to use?

Graphing

$y = -\frac{5}{3}x + 12$ $m = \frac{-5}{3}$ rise / run $y\text{-int} = 12$

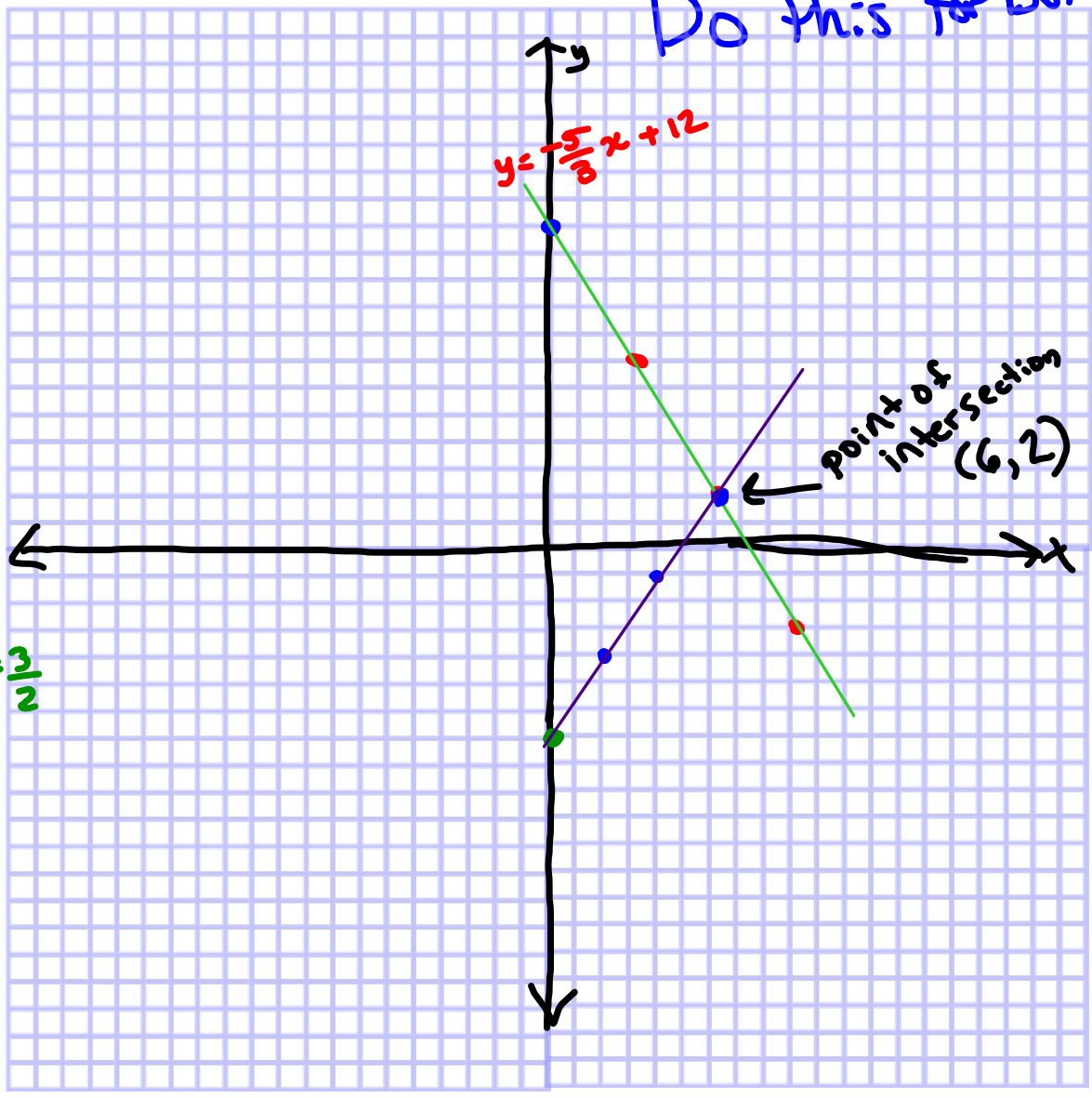
$y = \frac{3}{2}x - 7$ $m = \frac{3}{2}$ $y\text{-int} = -7$ ← Start

$y = mx + b$

→ plot y intercept first

→ then use slope rise/run to get other point on line

Do this for Both



What Method do you want to use? Sub ( )

① $y - 4x = -10$ ⇒ ③ $y = 4x - 10$

② $3y - x = 3$

↓ sub ③ into ②

② $3y - x = 3$

$3(4x - 10) - x = 3$

$12x - 30 - x = 3$

$11x - 30 = 3$

$11x - 30 \overset{+30}{} = 3 \overset{+30}{}$

$\frac{11x}{11} = \frac{33}{11}$

$x = 3$

↓ sub into ③

$y = 4x - 10$

$= 4(3) - 10$

$= 12 - 10$

$y = 2$

$(3, 2)$

What Method do you want to use? Elimination

opposite

① $4x + 9y = -19$

+② $-4x - 7y = 13$

$2y = -6$

$\frac{2y}{2} = \frac{-6}{2}$

$y = -3$ → sub into ①

$4x + 9y = -19$

$4x + 9(-3) = -19$

$4x - 27 = -19$

$+27 \quad +27$

$4x = 8$

$\frac{4x}{4} = \frac{8}{4}$

$x = 2$

Point of intersection

$(2, -3)$

What Method do you want to use?

$$5x - 4y = -23$$

$$-5x + 9y = 8$$

What Method do you want to use?

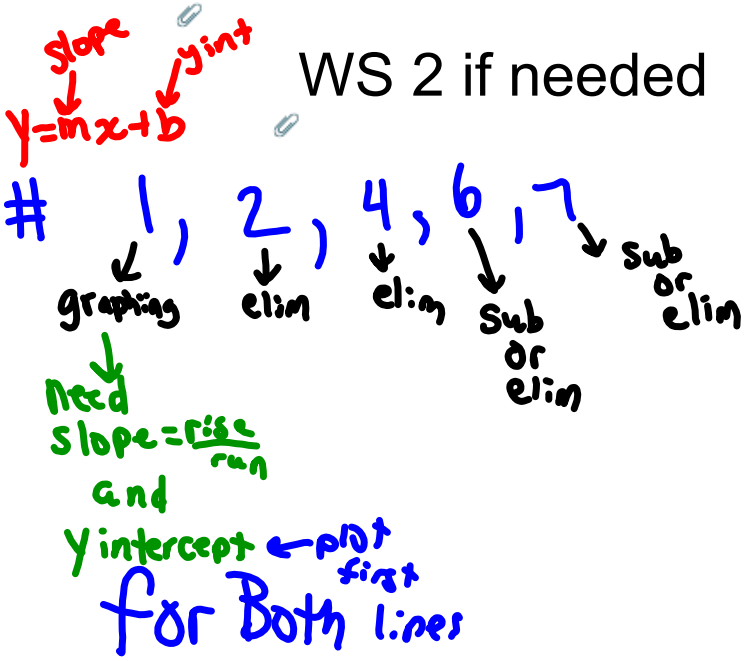
$$-x + 5y = -16$$

$$-3x + 7y = -8$$

y = mx + b graphing

Worksheet - Review System Of Equations

WS 2 if needed



Attachments

pre-algebra_sys_solve Sys of Eq any method.pdf

Review after Christmas.pdf