Created by Parker Denton

Warmup 11/$\left(\frac{8-4+2(1,250)-2474}{2}+14\right)$

*****Make sure there is a whiteboard, marker, & eraser in your desk.*****

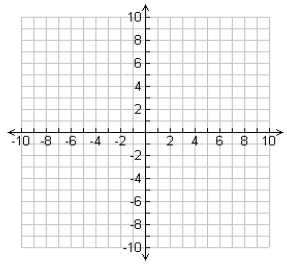
1. Find as many points as you can that would be on the graph of the equation **5x + 2y = 60.**

2. Early finishers: find as many **MORE** points as you can.

(12, 0) (14, -5) (6, 15) (4, 20) (0, 30) (8, 10) (10, 5) (2, 25) (1, 27.5) (20, -20) (9, 7.5)

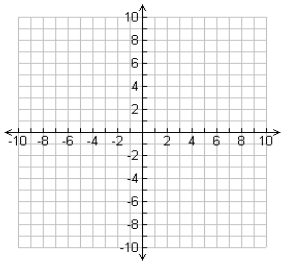
2 strategies to graph…

- **3x + 4y = 24**



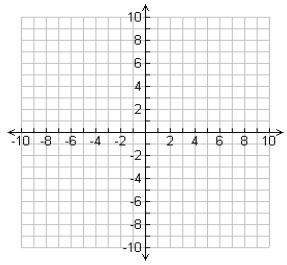
2 strategies to graph…

- **10x – 2y = 20**



2 strategies to graph…

$\frac{1}{4}x = y + 3$



Check homework

Another way to solve systems…

- Look at #2 on your homework.

$\begin{cases} y = 2x - 8 \\ y = -3x + 7 \end{cases}$

Since y = both, you can set them equal to each other

$2x - 8 = -3x + 7$

Then solve…

- $x = 3$ **(Does this match your original answer?)**
- **How can we get y?**

Table of Contents

Solving Systems by Substitution

Objective:

-Use a new strategy (substitution) to solve systems of equations. (No graphs, just pencil/paper)

WHITEBOARDS

Solve the System of Equations using Substitution

$$x + y = 10$$
$$y = 2$$

(8, 2)

Solve the System of Equations using Substitution

$$5x + 5y = 100$$
$$y = 5$$

(15, 5)

Solve the System of Equations using Substitution

$$y = x + 100$$
$$y = 45$$

(-55, 45)

Solve the System of Equations using Substitution

$3x + 10y = 20$

$x = 6$

$(6, \frac{1}{5})$

Solve the System of Equations using Substitution

$4x + y = 24$

$y = 2x$

$4x + y = 24$

$4x + 2x = 24$

$6x = 24$

$x = 4$

Now find y:

$y = 2x$

$y = 2(4)$

$y = 8$

$(4, 8)$

CHECK:

Solution: (4, 8)

$4x + y = 24$

$4(4) + 8 = 24$

$16 + 8 = 24$

$24 = 24$ ✓