Algebra Foundations
CW/HW 13: Systems Review

Name: _____
Date:_____Period:_____

You must show work to support your answer.

1. Solve the system by substitution.

$$\begin{cases} x - y = -3 \\ 2x + y = 0 \end{cases}$$

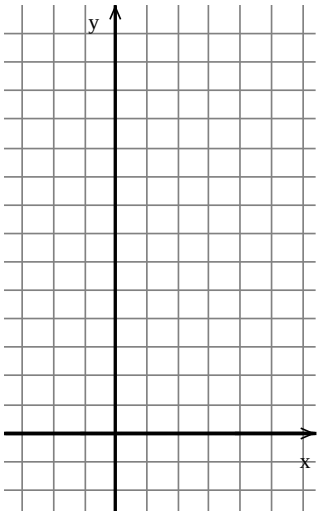
2. Solve the system by substitution.

$$\begin{cases} y = 3x + 2 \\ 3x - 2y = -13 \end{cases}$$

*be careful with + and – 's

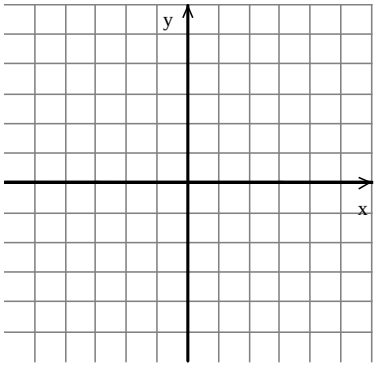
3. Solve the system by graphing.

$$\begin{cases} 2x + y = 11 \\ x + 3y = 18 \end{cases}$$



4. Solve the system by graphing.

$$\begin{cases} 6x + 3y = 9 \\ -4x - 2y = 4 \end{cases}$$



5. Solve by substitution.

$$\begin{cases} y = 6 \\ -4x + 2y = 10 \end{cases}$$

6. Solve using substitution.

$$\begin{cases} y = 3x + 4 \\ 3y - 2x = -2 \end{cases}$$

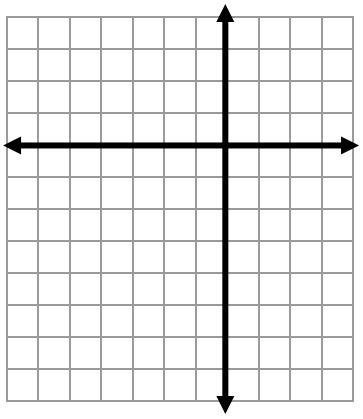
7. Solve the system $\begin{cases} 4x = 2y + 6 \\ y = 2x - 5 \end{cases}$

8. Change each equation into $y = mx + b$ form:

a) $2x - 3y = 15$

b) $x + 4y = -12$

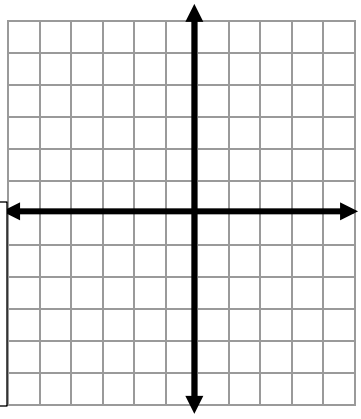
9. Graph: $\begin{cases} y \geq \frac{-1}{2}x - 4 \\ y < x + 1 \end{cases}$



Name 3 solutions

(,)
(,)
(,)

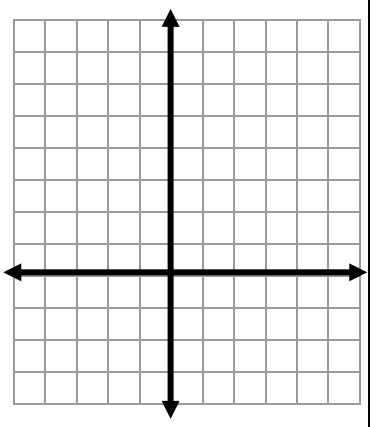
10. Graph: $\begin{cases} 3x - 1y < 1 \\ y + 3 < 0 \end{cases}$



Name 2 solutions

(,)
(,)

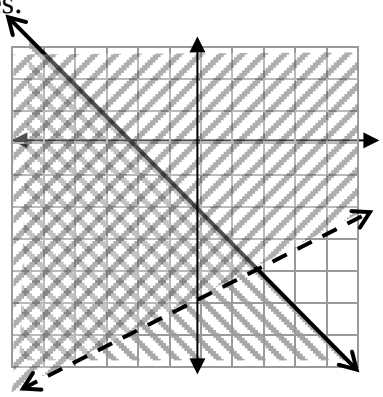
11. Graph $\begin{cases} x \geq 1 \\ y < 3 \end{cases}$



Name 3 solutions

(,)
(,)
(,)

12. Plot each point and state if it is a solution to the system of inequalities.



A) (1, 2) _____
B) (5, –2) _____
C) (0,–3) _____
D) (–4, –2) _____
E) (–2, 0) _____

13. Determine if (–2,–6) is a solution of $\begin{cases} y > 4x - 6 \\ y \leq \frac{1}{2}x - 4 \end{cases}$

14. Determine if (0, 4) is a solution to $\begin{cases} y \geq \frac{-1}{2}x - 4 \\ y < x + 1 \end{cases}$