

Solving Linear Systems by Graphing
Homework

Name Key
Date _____ Period _____

Rewrite the following equations in slope-intercept form.

1. $4x + 6y = -12$ $y = -\frac{2}{3}x - 2$ 2. $-x + 4y = 0$ $y = \frac{1}{4}x$ 3. $-4x - 2y - 6 = 0$ $y = -2x - 3$

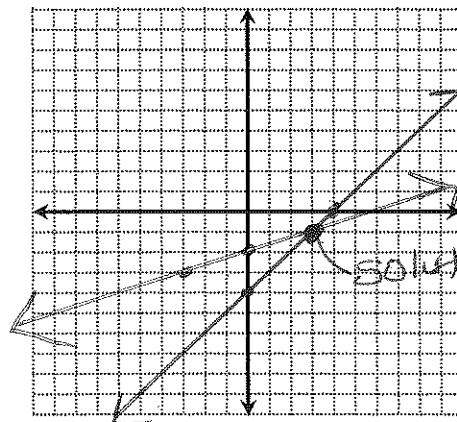
For each of the following:

- Graph the following systems of equations.
- Name the solution(s) to the system (point of intersection).
- Verify your solution by substituting the ordered pair into both equations. Show your work.

4. $\begin{cases} y = x - 4 \\ y = \frac{1}{3}x - 2 \end{cases}$

Number of Solutions 1

Solution (3, -1)

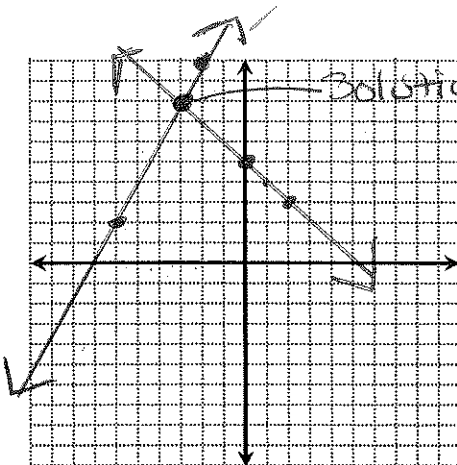


Verify
 $y = x - 4$
 $-1 = 3 - 4$
 $-1 = -1 \checkmark$
 $y = \frac{1}{3}x - 2$
 $-1 = \frac{1}{3}(3) - 2$
 $-1 = -1 \checkmark$

5. $\begin{cases} y = 2x + 14 \\ y = -x + 5 \end{cases}$

Number of Solutions 1

Solution (-3, 8)



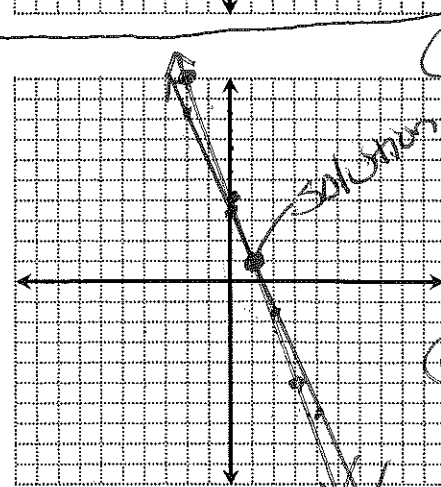
$y = 2x + 14$
 $8 = 2(-3) + 14$
 $8 = 8 \checkmark$
 $y = -x + 5$
 $8 = -(-3) + 5$
 $8 = 8 \checkmark$

Standard Form $Ax + By = C$
OR CONVERT to $y = mx + b$
A) $3x + y = 4$ $(\frac{4}{3}, 0)$ $(0, 4)$
B) $5x + 2y = 7$ $(\frac{7}{5}, 0)$ $(0, \frac{7}{2})$

Number of Solutions 1

Solution (1, 1)

Verify on back



Convert
 $3x + y = 4$
 $y = -3x + 4$
 $5x + 2y = 7$
 $-5x$
 $2y = -5x + 7$
 $y = -\frac{5}{2}x + \frac{7}{2}$
Convert
 $3x + y = 4$
 $y = -3x + 4$