

Lesson 6-1A - Solving systems by graphing

Answers (respuestas) **p.262 #10, 15, 27, 32-40 all**

10) no, different slopes

35) neither

15) $y = -2x - 1$

36) parallel

27) $y = 3x - 10$

37) perpendicular

32) perpendicular

38) parallel

33) parallel

39) neither

34) perpendicular

40) $y = 4x + b$

Due Tomorrow: p. 265 #71-76 all; p.279 #1-11 odds

$$y = \boxed{-\frac{1}{3}}x + 2; (4, 2)$$

$x \quad y$

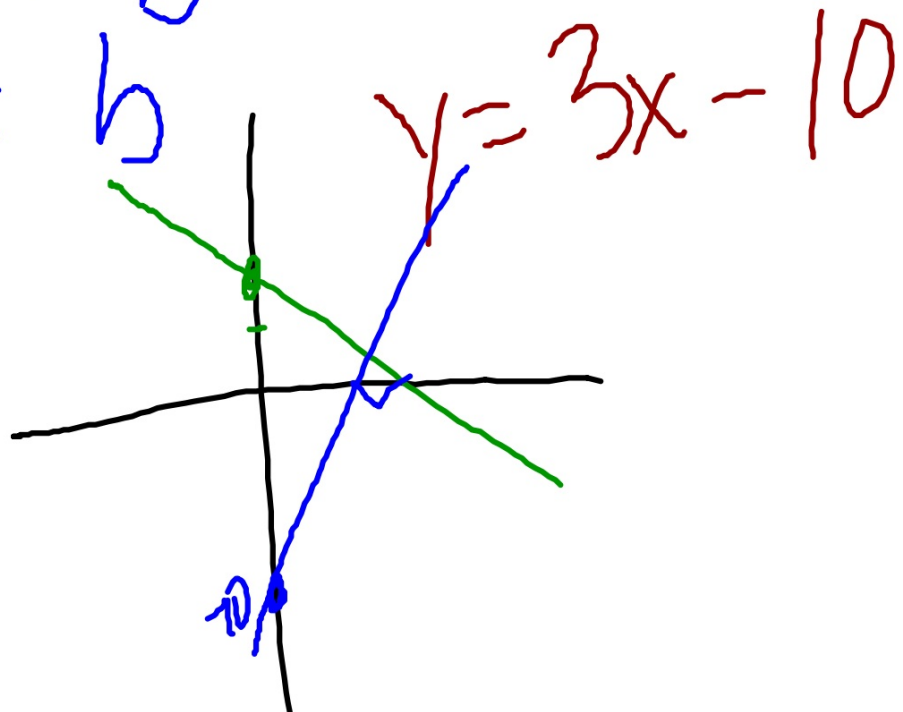
$$m = 3$$
$$b = -10$$

$$2 = 3(4) + b$$

$$2 = 12 + b$$

$-12 \quad -12$

$$-10 = b$$



1) Write the equation of the line that is **perpendicular** to $y = -2x$ and passes through point $(8, 6)$.

$$m = \frac{1}{2}$$

$$b = \frac{1}{2}(8) + b$$
$$6 = 4 + b$$
$$2 = b$$

$$y = \frac{1}{2}x + 2$$

$$b = 2$$

2) Are these lines parallel, perpendicular, or **neither** (ninguno)?

$$y = 3x - 10, \quad 9x + 3y = 12$$

$$\frac{3y}{3} = \frac{-9x + 12}{3}$$

$$y = -3x + 4$$

Name:

Period:

Date:

System of equations: two or more equations.

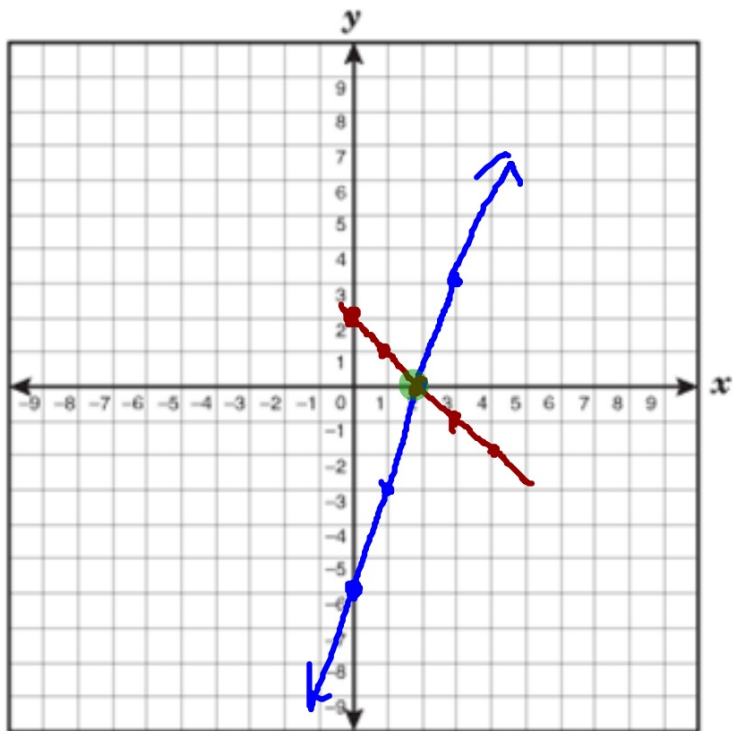
The "solution" is a point (x, y) that makes both equations true.

$$y = 3x - 6$$

$$y = -x + 2$$

$$y = 3x - 6$$

$$y = -x + 2$$



$(\overset{x}{2}, \overset{y}{0})$
↑
point of
intersection.

Check your answer:

$$\begin{matrix} (2, 0) \\ x, y \end{matrix}$$

$$y = 3x - 6$$

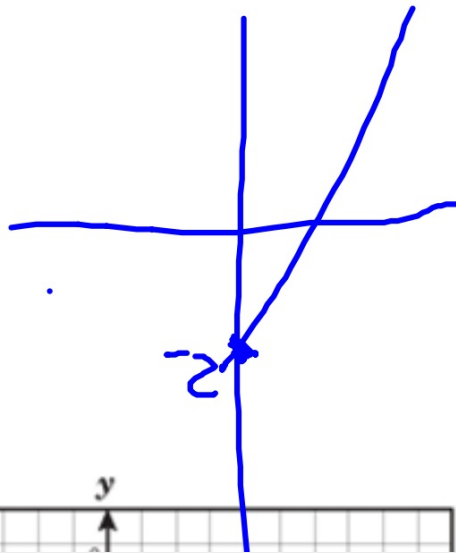
$$y = -x + 2$$

$$0 = 3(2) - 6 \rightarrow 0 = 0 \checkmark$$

$$0 = -(2) + 2 \rightarrow 0 = 0 \checkmark$$

$$\begin{array}{c} -2x \\ +2x \end{array} + y = \begin{array}{c} -2 \\ +2x \end{array}$$

$$y = 2x - 2$$

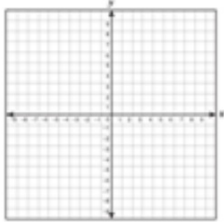


Is $(2, 1)$ a solution to the system? *yes!*

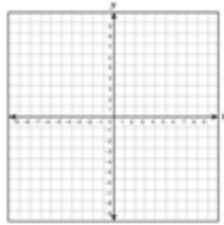
$$y = 2x - 3 \quad 1 = 2(2) - 3 \rightarrow 1 = 1 \quad \checkmark$$

$$y = x - 1 \quad 1 = 2 - 1 \rightarrow 1 = 1 \quad \checkmark$$

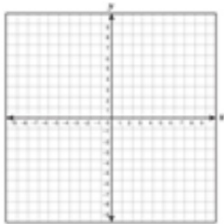
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9



11

