

Quiz 8.1 Solving Systems by Graphing

/10

1. Solve each system of linear equations graphically. (3 marks each)

a) $y = -2x + 5$

$y = x + 2$

b) $3x + 2y = -12$

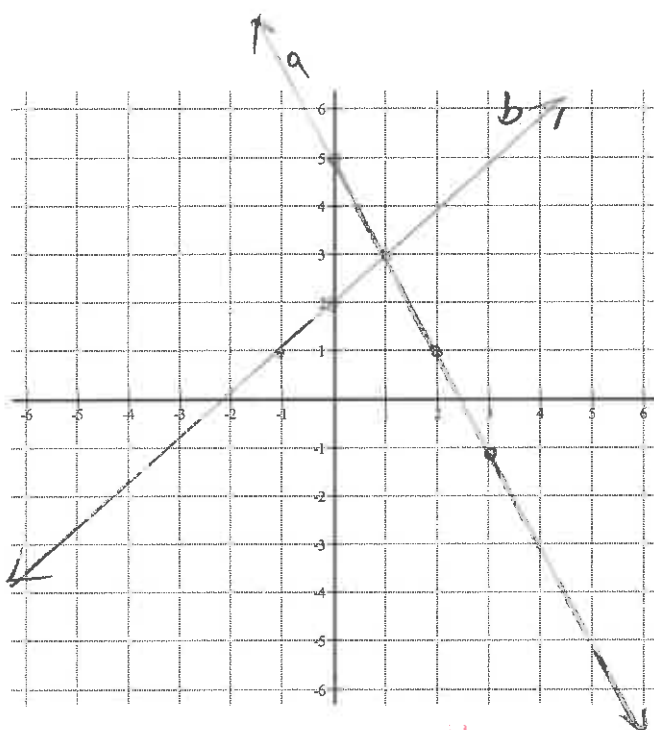
$x - 2y + 4 = 0$

$$\begin{aligned} 2y &= x + 4 \\ y &= \frac{1}{2}x + 2 \end{aligned}$$

$$3(0) + 2y = -12 \quad 3x + 2(0) = -12$$

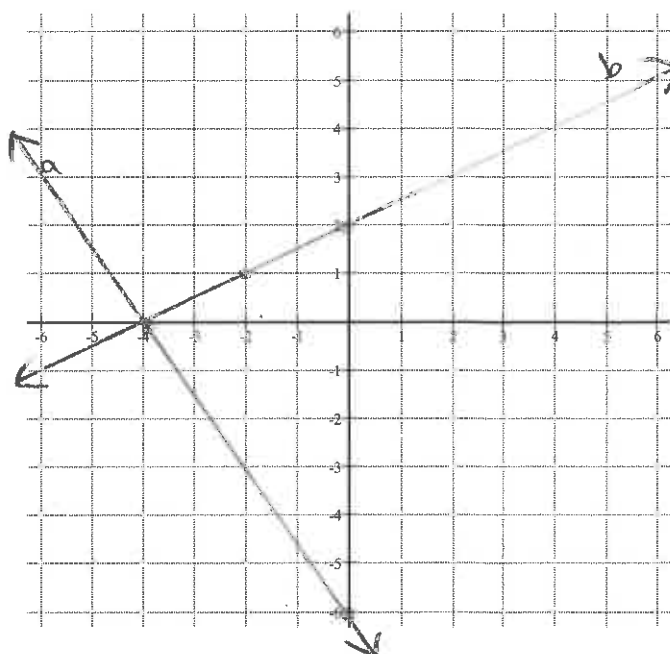
$$2y = -12$$

$$y = -6$$



Solution:

$$\begin{pmatrix} x \\ y \end{pmatrix} = \begin{pmatrix} 1 \\ 3 \end{pmatrix}$$



Solution:

$$\begin{pmatrix} x \\ y \end{pmatrix} = \begin{pmatrix} -4 \\ 0 \end{pmatrix}$$

2. Verify each solution from question #1. (2 marks each)

a) $L: 3 = -2(1) + 5$

$$3 = 3 \checkmark$$

$$3 = 1 + 2$$

$$3 = 3 \checkmark$$

b) $3(-4) + 2(0) = -12$

$$-12 = -12 \checkmark$$

$$(-4) - 2(0) + 4 = 0$$

$$-4 + 4 = 0$$

$$0 = 0 \checkmark$$

Quiz 8.1 Solving Systems by Graphing

/10

1. Solve each system of linear equations graphically. (3 marks each)

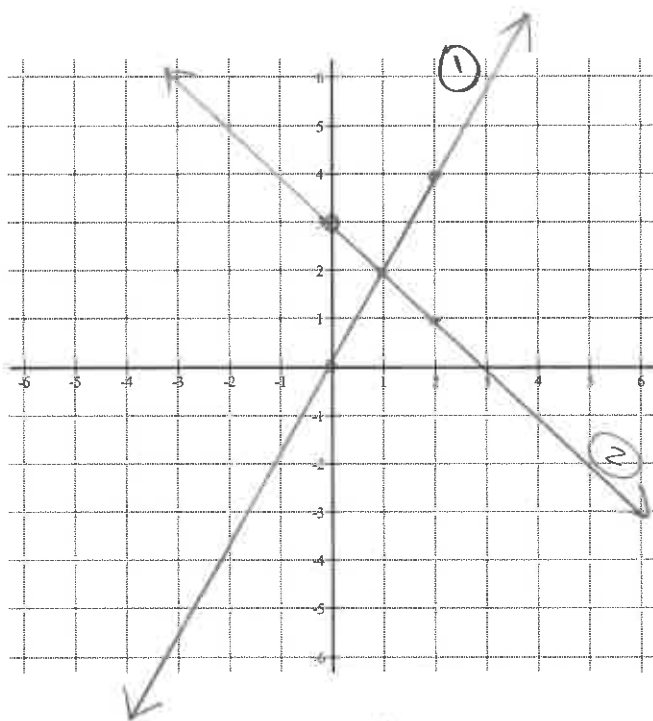
a) $y = 2x$ ①
 $y = -x + 3$ ②

b) $x - 2y = 6$

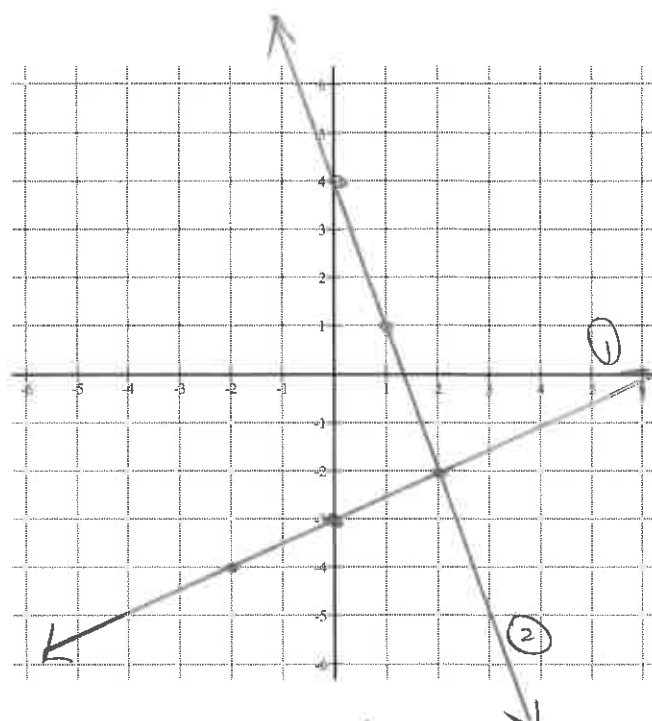
$3x + y = 4$

$\frac{1}{2}x - 3 = y$

$y = -3x + 4$



Solution: (1, 2)



Solution: (2, -2)

2. Verify each solution from question #1. (2 marks each)

a)

$2 = 2(1)$

$2 = 2$ ✓

$2 = -1 + 3$

$2 = 2$ ✓

b)

$2 - 2(-2) = 6$

$2 + 4 = 6$

$6 = 6$ ✓

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

$6 - 2 = 4$

$4 = 4$ ✓