CW: 7.1.4- Solving Systems without a calculator **Name:**

Review:

1. Is the ordered pair (4,6) a solution to the equation: y = 2x - 2?
   YES or NO Show your work: (x, y)

$6 = 2(4) - 2$
$6 = 8 - 2$
$6 = 6$

2. Is the ordered pair (5,8) a solution to the linear system:
   y = 2x - 2
   y = 4x -10
   YES or NO Show your work: (x, y)

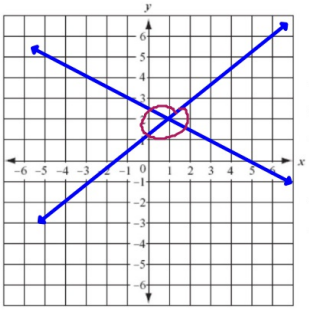
$8 = 2(5) - 2$
$8 = 10 - 2$
$8 = 8$

$8 = 4(5) - 10$
$8 = 20 - 10$
$8 \neq 10$

3. Is the ordered pair (2,-6) a solution to the linear system:
   4x + 2y = -4
   y = 4x - 14
   YES or NO Show your work: (x, y)

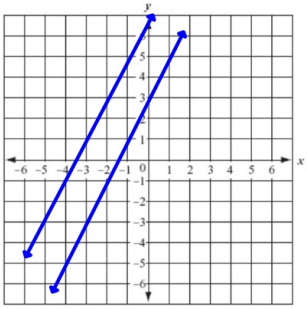
$4(2) + 2(-6) = -4$
$8 + -12 = -4$
$-4 = -4$

$-6 = 4(2) - 14$
$-6 = 8 - 14$
$-6 = -6$



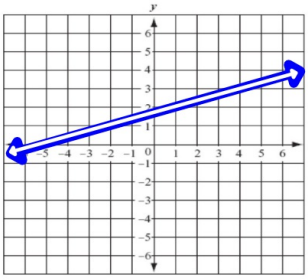
4. How many solutions does this linear system have? 1

   If possible, list solution(s) here: (1, 2)



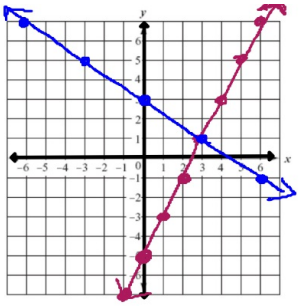
5. How many solutions does this linear system have? No solutions

   If possible, list solution(s) here: _____



6. How many solutions does this linear system have? infinitely many solutions

   If possible, list solution(s) here: _____



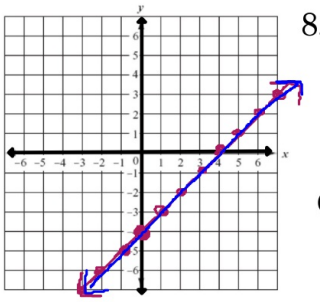
7. Graph the following system.
- y = 2x - 5
- y = -2/3x + 3

Give the solution to the system: (3, 1) (x, y)

Check the solution algebraically: plug it in

$1 = 2(3) - 5$
$1 = 6 - 5$
$1 = 1$ ✓

$1 = -\frac{2}{3}(3) + 3$
$1 = -2 + 3$
$1 = 1$ ✓



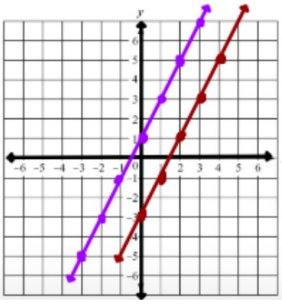
8. Graph the following system.
- y = x - 4
- -4x + 4y = -16

+4x +4x

$\frac{4y}{4} = \frac{4x}{4} - \frac{16}{4}$
$y = x - 4$

Give the solution to the system: infinitely many solutions

Check the solution algebraically:



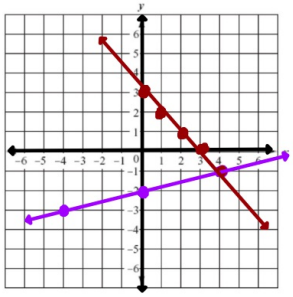
9. Graph the following system.
- y = 2x + 1
- 8x - 4y = 12

-8x -8x

$\frac{-4y}{-4} = \frac{-8x}{-4} + \frac{12}{-4}$
$y = 2x - 3$

Give the solution to the system: No Solution

Check the solution algebraically:



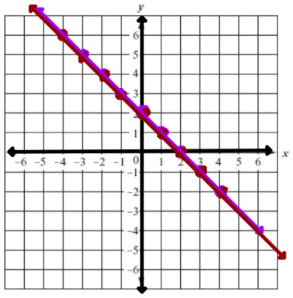
10. Graph the following system.
- $y = \frac{1}{4}x - 2$
- $y = -x + 3$

Give the solution to the system: (4, -1)

Check the solution algebraically:

$-1 = \frac{1}{4}(4) - 2$
$-1 = 1 - 2$
$-1 = -1$ ✓

$-1 = -4 + 3$
$-1 = -1$ ✓



11. Graph the following system.
- 2x + 2y = 4
- 8x + 8y = 16

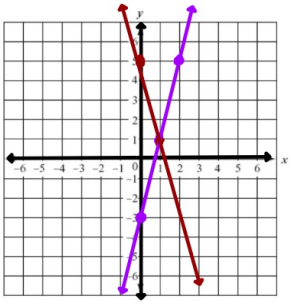
-2x -2x
-8x -8x

$\frac{2y}{2} = \frac{-2x}{2} + \frac{4}{2}$
$y = -x + 2$

$\frac{8y}{8} = \frac{-8x}{8} + \frac{16}{8}$
$y = -x + 2$

Give the solution to the system: Infinitely Many Solutions

Check the solution algebraically:



12. Graph the following system.
- $y = 4x - 3$
- $y = -4x + 5$

Give the solution to the system: (1, 1)

Check the solution algebraically:

$1 = 4(1) - 3$
$1 = 4 - 3$
$1 = 1$ ✓

$1 = -4(1) + 5$
$1 = -4 + 5$
$1 = 1$ ✓