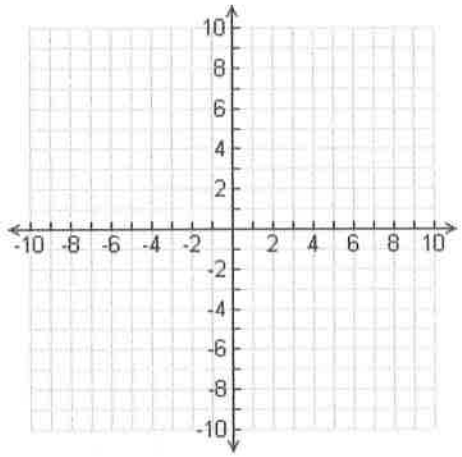
Math 10 - Systems Quiz 1

Name: _____

1. Find the solution to the following system graphically.

$$y - x = 1$$
$$2y + x = 8$$



2. How many solutions does the following system have?

$$3x - y + 7 = 0$$
$$3y - 9x = -21$$

3. Solve the following system by substitution.

$$y = 2x + 1$$
$$3y + 5 = x + 12$$

Math 10 - Systems Quiz 1

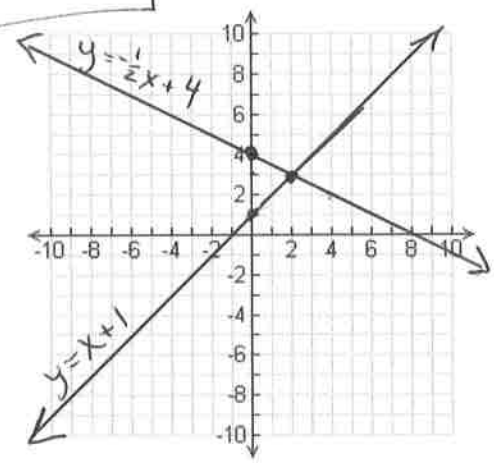
Name: KEY

1. Find the solution to the following system graphically.

(2, 3)

$y - x = 1$ $\quad y = x + 1$

$2y + x = 8$ $\quad y = -\frac{1}{2}x + 4$



2. How many solutions does the following system have?

$3x - y + 7 = 0$ $\quad y = 3x + 7$

$3y - 9x = -21$ $\quad 3y = 9x - 21$

$y = 3x - 7$

* SAME SLOPE
* DIFFERENT Y-INT

∴ No solution

3. Solve the following system by substitution.

$y = 2x + 1$

$3y + 5 = x + 12$

$3(2x+1) + 5 = x + 12$

$6x + 3 + 5 = x + 12$

$6x + 8 = x + 12$

$5x = 4$

$x = \frac{4}{5}$

$y = 2x + 1$

$y = 2(\frac{4}{5}) + 1$

$y = \frac{8}{5} + 1$

$y = \frac{13}{5}$

Answer: $\left(\frac{4}{5}, \frac{13}{5}\right) = (.8, 2.6)$