

## Systems of Equations Homework

1. How many solutions does the system have:  $\begin{cases} y = 4x + 2 \\ 2y = 8x + 10 \end{cases}$

2. What is the solution to the system:  $\begin{cases} 3x + 4y = 28 \\ x = 2y + 6 \end{cases}$

3. Given the system:  $\begin{cases} 3x - 2y = 12 \\ 4x - y = 11 \end{cases}$  what is the value of  $y$  in the solution?

4. Given:  $\begin{cases} 2x + y = 2 \\ 6x - 3y = 42 \end{cases}$  what is  $x + y$ ?

5. Solve by graphing:

$$y = -2x + 1$$

$$y = -2x - 3$$

a)

$$y = 2x + 6$$

$$4x - 2y = 8$$

b)

6. Solve using substitution:

$$y = 4x - 8$$

$$y = 2x + 10$$

a)

$$t = 0.2s + 10$$

$$4s + 5t = 35$$

b)

7. Solve using elimination:

$$2x + 5y = 17$$

$$6x - 5y = -9$$

a)

$$7x + 2y = 10$$

$$-7x + y = -16$$

b)