

Homework 1: Graphing and Substitution**Solve each system by graphing.**Find each solution, if possible, or write "no solution" or "all points on the line $y = \underline{\hspace{2cm}}$ " if there are infinitely many solutions.

1.
$$\begin{cases} y = -x + 4 \\ y = -x + 2 \end{cases}$$

2.
$$\begin{cases} y = 4x + 3 \\ y = x - 6 \end{cases}$$

3.
$$\begin{cases} 3y = 6x - 3 \\ y = 2x - 1 \end{cases}$$

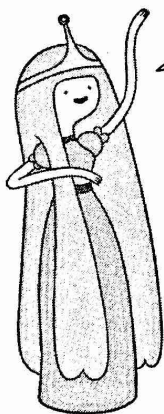
4.
$$\begin{cases} y = x \\ y = -x \end{cases}$$

5.
$$\begin{cases} 2y = 4x \\ y = 2x + 1 \end{cases}$$

6.
$$\begin{cases} x + y = 10 \\ y = -x + 10 \end{cases}$$

7.
$$\begin{cases} x + y = 8 \\ x - y = 4 \end{cases}$$

8.
$$\begin{cases} 4x + 2y = 10 \\ y = -2x \end{cases}$$

CHALLENGE:

Princess Bubblegum said that a system of equations that contains the equations that have the same slope always has no solution. Do you agree? Explain.

Homework - Substitution Method

Solve each system by substitution.

$$1. \begin{cases} 3x + 4y = 9 \\ y = x - 3 \end{cases}$$

$$2. \begin{cases} 8x - 14y = 5 \\ x = 3y \end{cases}$$

$$3. \begin{cases} 12x + 4 = 8y \\ y = x - 7 \end{cases}$$

$$4. \begin{cases} x = -0.25y + 1 \\ 4x + y = 6 \end{cases}$$

$$5. \begin{cases} 2x - y = 1 \\ 4x + 6y = 10 \end{cases}$$

$$6. \begin{cases} x - 7y = -10 \\ 3x - 2y = 8 \end{cases}$$

$$7. \begin{cases} 7x - 2y = 5 \\ x - y = 0 \end{cases}$$

$$8. \begin{cases} x - 3y = 8 \\ 3y - x = -8 \end{cases}$$