



Chapter 2: Equations and Inequalities

Solving Systems of Equations

Solve each system of equations.

1)
$$\begin{cases} x + 2y = 6 \\ 2x - y = 8 \end{cases} \quad x = \quad y =$$

8)
$$\begin{cases} 3y = -6x + 12 \\ 8x - 9y = -10 \end{cases} \quad x = \quad y =$$

2)
$$\begin{cases} 2x + 4y = 6 \\ 4x - 2y = 8 \end{cases} \quad x = \quad y =$$

9)
$$\begin{cases} 3x - 2y = 15 \\ 3x - 5y = 15 \end{cases} \quad x = \quad y =$$

3)
$$\begin{cases} -2x + 2y = -4 \\ 4x - 9y = 28 \end{cases} \quad x = \quad y =$$

10)
$$\begin{cases} -5x + y = -3 \\ 3x - 7y = 21 \end{cases} \quad x = \quad y =$$

4)
$$\begin{cases} x + 8y = -5 \\ 2x + 6y = 0 \end{cases} \quad x = \quad y =$$

11)
$$\begin{cases} x + 15y = 50 \\ x + 10y = 40 \end{cases} \quad x = \quad y =$$

5)
$$\begin{cases} 4x - 3y = -2 \\ x - y = 3 \end{cases} \quad x = \quad y =$$

12)
$$\begin{cases} 3x - 6y = -12 \\ -x - 3y = -6 \end{cases} \quad x = \quad y =$$

6)
$$\begin{cases} 2x + 9y = 17 \\ -3x + 8y = 39 \end{cases} \quad x = \quad y =$$

13)
$$\begin{cases} 3x + 6y = 18 \\ 6x - 3y = 24 \end{cases} \quad x = \quad y =$$

7)
$$\begin{cases} -4x - 6y = 7 \\ 3x - 2y = 7 \end{cases} \quad x = \quad y =$$

14)
$$\begin{cases} 12x - 9y = -6 \\ 3x - 3y = 9 \end{cases} \quad x = \quad y =$$

Solving Special Systems

 Determine whether the system given below has no solution, one solution, or infinitely many solutions.

$$1) \begin{cases} x + y = 7 \\ 4x + 4y = 12 \end{cases}$$

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

$$2) \begin{cases} 2x + y = 4 \\ 4x + 2y = 8 \end{cases}$$

$$9) \begin{cases} x - y = -2 \\ -x + y = 4 \end{cases}$$

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

$$10) \begin{cases} x + y = 3 \\ 2x + 2y = 6 \end{cases}$$

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

$$11) \begin{cases} x + y = 4 \\ 4x + 4y = 12 \end{cases}$$

$$5) \begin{cases} x - 5y = 1 \\ -2x + 10y = 3 \end{cases}$$

$$12) \begin{cases} x = 3y - 7 \\ 2x - 6y = -14 \end{cases}$$

$$6) \begin{cases} 2x - 3y = 5 \\ 6x + y = 5 \end{cases}$$

$$13) \begin{cases} x + y = 1 \\ x + y = 3 \end{cases}$$

$$7) \begin{cases} y = 2x - 3 \\ y = 5x - 18 \end{cases}$$

$$14) \begin{cases} 2y = 2 + 6x \\ 2y - 6x = -8 \end{cases}$$