

Solve each system by substitution. Write your solution as an ordered pair. SHOW ALL WORK to earn full credit.

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

2)
$$\begin{cases} x = -4y \\ 3x + 2y = 20 \end{cases}$$

Solution: _____

Solution: _____

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

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

Solution: _____

Solution: _____

5)
$$\begin{cases} y = 5x - 7 \\ -3x - 2y = -12 \end{cases}$$

6)
$$\begin{cases} y = -3x + 5 \\ 5x - 4y = -3 \end{cases}$$

Solution: _____

Solution: _____

$$7) \begin{cases} -5x + y = -2 \\ -3x + 6y = -12 \end{cases}$$

$$8) \begin{cases} 3x - y = 4 \\ 2x - 3y = -9 \end{cases}$$

Solution: _____

Solution: _____

$$9) \begin{cases} x + 3y = 1 \\ -3x - 3y = -15 \end{cases}$$

$$10) \begin{cases} -3x + 3y = 4 \\ -x + y = 3 \end{cases}$$

Solution: _____

Solution: _____

$$11) \begin{cases} x = -4y + 3 \\ -5x - 20y = -15 \end{cases}$$

$$12) \begin{cases} 6x + 6y = -6 \\ 5x + y = -13 \end{cases}$$

Solution: _____

Solution: _____

13) Use substitution to find the values of x , y , and z

$$\begin{cases} 4x + y + 3z = -9 \\ 2y - 5z = 23 \\ z = -3 \end{cases}$$

Solution: (, ,)