

## SYSTEMS: SUBSTITUTION

Solve each system by substitution.

1)  $y = x - 10$   
 $y = -4x + 20$

2)  $y = 7x - 18$   
 $y = 8x - 21$

3)  $y = 6x + 14$   
 $y = 4x + 12$

4)  $y = -2x + 14$   
 $y = -3x + 19$

5)  $y = -8x + 9$   
 $y = 3x - 2$

6)  $-2x - y = -12$   
 $y = -4$

7)  $-4x + 4y = 8$   
 $y = 5x + 18$

8)  $y = 5x + 15$   
 $-6x - 5y = -13$

9)  $6x - 6y = -12$   
 $y = 3x - 4$

10)  $y = 6x - 5$   
 $-4x - 4y = -8$

11)  $-x - 2y = -5$   
 $-6x + y = 22$

12)  $-x + y = 2$   
 $-5x + 4y = 13$

13)  $-x - 7y = -13$   
 $x - 7y = -1$

14)  $y = 3$   
 $-2x - 6y = -8$

15)  $18x + 3y = 3$   
 $6x + y = 1$

16)  $x + 2y = 6$   
 $2x + 4y = 0$

17)  $-5x - 5y = 10$   
 $3x + y = -2$

18)  $4x - 2y = -12$   
 $x + y = 3$

19)  $-6x + y = 15$   
 $6x - y = -15$

20)  $-3x - 6y = 18$   
 $x + 2y = -6$

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Solve each system by substitution.

$$\begin{aligned} 1) \quad & y = x - 10 \\ & y = -4x + 20 \\ & \quad (6, -4) \end{aligned}$$

$$\begin{aligned} 3) \quad & y = 6x + 14 \\ & y = 4x + 12 \\ & \quad (-1, 8) \end{aligned}$$

$$\begin{aligned} 5) \quad & y = -8x + 9 \\ & y = 3x - 2 \\ & \quad (1, 1) \end{aligned}$$

$$\begin{aligned} 7) \quad & -4x + 4y = 8 \\ & y = 5x + 18 \\ & \quad (-4, -2) \end{aligned}$$

$$\begin{aligned} 9) \quad & 6x - 6y = -12 \\ & y = 3x - 4 \\ & \quad (3, 5) \end{aligned}$$

$$\begin{aligned} 11) \quad & -x - 2y = -5 \\ & -6x + y = 22 \\ & \quad (-3, 4) \end{aligned}$$

$$\begin{aligned} 13) \quad & -x - 7y = -13 \\ & x - 7y = -1 \\ & \quad (6, 1) \end{aligned}$$

$$\begin{aligned} 15) \quad & 18x + 3y = 3 \\ & 6x + y = 1 \\ & \quad \text{Infinite number of solutions} \end{aligned}$$

$$\begin{aligned} 17) \quad & -5x - 5y = 10 \\ & 3x + y = -2 \\ & \quad (0, -2) \end{aligned}$$

$$\begin{aligned} 19) \quad & -6x + y = 15 \\ & 6x - y = -15 \\ & \quad \text{Infinite number of solutions} \end{aligned}$$

$$\begin{aligned} 2) \quad & y = 7x - 18 \\ & y = 8x - 21 \\ & \quad (3, 3) \end{aligned}$$

$$\begin{aligned} 4) \quad & y = -2x + 14 \\ & y = -3x + 19 \\ & \quad (5, 4) \end{aligned}$$

$$\begin{aligned} 6) \quad & -2x - y = -12 \\ & y = -4 \\ & \quad (8, -4) \end{aligned}$$

$$\begin{aligned} 8) \quad & y = 5x + 15 \\ & -6x - 5y = -13 \\ & \quad (-2, 5) \end{aligned}$$

$$\begin{aligned} 10) \quad & y = 6x - 5 \\ & -4x - 4y = -8 \\ & \quad (1, 1) \end{aligned}$$

$$\begin{aligned} 12) \quad & -x + y = 2 \\ & -5x + 4y = 13 \\ & \quad (-5, -3) \end{aligned}$$

$$\begin{aligned} 14) \quad & y = 3 \\ & -2x - 6y = -8 \\ & \quad (-5, 3) \end{aligned}$$

$$\begin{aligned} 16) \quad & x + 2y = 6 \\ & 2x + 4y = 0 \\ & \quad \text{No Solution} \end{aligned}$$

$$\begin{aligned} 18) \quad & 4x - 2y = -12 \\ & x + y = 3 \\ & \quad (-1, 4) \end{aligned}$$

$$\begin{aligned} 20) \quad & -3x - 6y = 18 \\ & x + 2y = -6 \\ & \quad \text{Infinite number of solutions} \end{aligned}$$