

Solving Systems of Equations by Substitution

Solve each system by substitution.

1) $y = 6x - 11$
 $-2x - 3y = -7$

2) $2x - 3y = -1$
 $y = x - 1$

3) $y = -3x + 5$
 $5x - 4y = -3$

4) $-3x - 3y = 3$
 $y = -5x - 17$

5) $y = -2$
 $4x - 3y = 18$

6) $y = 5x - 7$
 $-3x - 2y = -12$

7) $-4x + y = 6$
 $-5x - y = 21$

8) $-7x - 2y = -13$
 $x - 2y = 11$

9) $-5x + y = -2$
 $-3x + 6y = -12$

10) $-5x + y = -3$
 $3x - 8y = 24$

$$\begin{aligned} 11) \quad & x + 3y = 1 \\ & -3x - 3y = -15 \end{aligned}$$

$$\begin{aligned} 12) \quad & -3x - 8y = 20 \\ & -5x + y = 19 \end{aligned}$$

$$\begin{aligned} 13) \quad & -3x + 3y = 4 \\ & -x + y = 3 \end{aligned}$$

$$\begin{aligned} 14) \quad & -3x + 3y = 3 \\ & -5x + y = 13 \end{aligned}$$

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

$$\begin{aligned} 16) \quad & 2x + y = 20 \\ & 6x - 5y = 12 \end{aligned}$$

$$\begin{aligned} 17) \quad & -3x - 4y = 2 \\ & 3x + 3y = -3 \end{aligned}$$

$$\begin{aligned} 18) \quad & -2x + 6y = 6 \\ & -7x + 8y = -5 \end{aligned}$$

$$\begin{aligned} 19) \quad & -5x - 8y = 17 \\ & 2x - 7y = -17 \end{aligned}$$

$$\begin{aligned} 20) \quad & -2x - y = -9 \\ & 5x - 2y = 18 \end{aligned}$$

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Solve each system by substitution.

1) $y = 6x - 11$
 $-2x - 3y = -7$

 $(2, 1)$

2) $2x - 3y = -1$
 $y = x - 1$

 $(4, 3)$

3) $y = -3x + 5$
 $5x - 4y = -3$

 $(1, 2)$

4) $-3x - 3y = 3$
 $y = -5x - 17$

 $(-4, 3)$

5) $y = -2$
 $4x - 3y = 18$

 $(3, -2)$

6) $y = 5x - 7$
 $-3x - 2y = -12$

 $(2, 3)$

7) $-4x + y = 6$
 $-5x - y = 21$

 $(-3, -6)$

8) $-7x - 2y = -13$
 $x - 2y = 11$

 $(3, -4)$

9) $-5x + y = -2$
 $-3x + 6y = -12$

 $(0, -2)$

10) $-5x + y = -3$
 $3x - 8y = 24$

 $(0, -3)$

$$\begin{aligned} 11) \quad & x + 3y = 1 \\ & -3x - 3y = -15 \\ & (7, -2) \end{aligned}$$

$$\begin{aligned} 12) \quad & -3x - 8y = 20 \\ & -5x + y = 19 \\ & (-4, -1) \end{aligned}$$

$$\begin{aligned} 13) \quad & -3x + 3y = 4 \\ & -x + y = 3 \\ & \text{No solution} \end{aligned}$$

$$\begin{aligned} 14) \quad & -3x + 3y = 3 \\ & -5x + y = 13 \\ & (-3, -2) \end{aligned}$$

$$\begin{aligned} 15) \quad & 6x + 6y = -6 \\ & 5x + y = -13 \\ & (-3, 2) \end{aligned}$$

$$\begin{aligned} 16) \quad & 2x + y = 20 \\ & 6x - 5y = 12 \\ & (7, 6) \end{aligned}$$

$$\begin{aligned} 17) \quad & -3x - 4y = 2 \\ & 3x + 3y = -3 \\ & (-2, 1) \end{aligned}$$

$$\begin{aligned} 18) \quad & -2x + 6y = 6 \\ & -7x + 8y = -5 \\ & (3, 2) \end{aligned}$$

$$\begin{aligned} 19) \quad & -5x - 8y = 17 \\ & 2x - 7y = -17 \\ & (-5, 1) \end{aligned}$$

$$\begin{aligned} 20) \quad & -2x - y = -9 \\ & 5x - 2y = 18 \\ & (4, 1) \end{aligned}$$