

4.2 Practice - Substitution

Solve each system by substitution.

1) $y = -3x$
 $y = 6x - 9$

3) $y = -2x - 9$
 $y = 2x - 1$

5) $y = 6x + 4$
 $y = -3x - 5$

7) $y = 3x + 2$
 $y = -3x + 8$

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

11) $y = 6x - 6$
 $-3x - 3y = -24$

13) $y = -6$
 $3x - 6y = 30$

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

17) $-2x + 2y = 18$
 $y = 7x + 15$

19) $y = -8x + 19$
 $-x + 6y = 16$

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

23) $x - 5y = 7$
 $2x + 7y = -20$

25) $-2x - y = -5$
 $x - 8y = -23$

27) $-6x + y = 20$
 $-3x - 3y = -18$

29) $3x + y = 9$
 $2x + 8y = -16$

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

4) $y = -6x + 3$
 $y = 6x + 3$

6) $y = 3x + 13$
 $y = -2x - 22$

8) $y = -2x - 9$
 $y = -5x - 21$

10) $y = 7x - 24$
 $y = -3x + 16$

12) $-x + 3y = 12$
 $y = 6x + 21$

14) $6x - 4y = -8$
 $y = -6x + 2$

16) $7x + 2y = -7$
 $y = 5x + 5$

18) $y = x + 4$
 $3x - 4y = -19$

20) $y = -2x + 8$
 $-7x - 6y = -8$

22) $x - 2y = -13$
 $4x + 2y = 18$

24) $3x - 4y = 15$
 $7x + y = 4$

26) $6x + 4y = 16$
 $-2x + y = -3$

28) $7x + 5y = -13$
 $x - 4y = -16$

30) $-5x - 5y = -20$
 $-2x + y = 7$

$$\begin{aligned} 31) \quad & 2x + y = 2 \\ & 3x + 7y = 14 \end{aligned}$$

$$\begin{aligned} 33) \quad & x + 5y = 15 \\ & -3x + 2y = 6 \end{aligned}$$

$$\begin{aligned} 35) \quad & -2x + 4y = -16 \\ & y = -2 \end{aligned}$$

$$\begin{aligned} 37) \quad & -6x + 6y = -12 \\ & 8x - 3y = 16 \end{aligned}$$

$$\begin{aligned} 39) \quad & 2x + 3y = 16 \\ & -7x - y = 20 \end{aligned}$$

$$\begin{aligned} 32) \quad & 2x + y = -7 \\ & 5x + 3y = -21 \end{aligned}$$

$$\begin{aligned} 34) \quad & 2x + 3y = -10 \\ & 7x + y = 3 \end{aligned}$$

$$\begin{aligned} 36) \quad & -2x + 2y = -22 \\ & -5x - 7y = -19 \end{aligned}$$

$$\begin{aligned} 38) \quad & -8x + 2y = -6 \\ & -2x + 3y = 11 \end{aligned}$$

$$\begin{aligned} 40) \quad & -x - 4y = -14 \\ & -6x + 8y = 12 \end{aligned}$$



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Answers - Substitution

- | | | |
|----------------|----------------|---------------|
| 1) $(1, -3)$ | 15) $(1, -5)$ | 29) $(4, -3)$ |
| 2) $(-3, 2)$ | 16) $(-1, 0)$ | 30) $(-1, 5)$ |
| 3) $(-2, -5)$ | 17) $(-1, 8)$ | 31) $(0, 2)$ |
| 4) $(0, 3)$ | 18) $(3, 7)$ | 32) $(0, -7)$ |
| 5) $(-1, -2)$ | 19) $(2, 3)$ | 33) $(0, 3)$ |
| 6) $(-7, -8)$ | 20) $(8, -8)$ | 34) $(1, -4)$ |
| 7) $(1, 5)$ | 21) $(1, 7)$ | 35) $(4, -2)$ |
| 8) $(-4, -1)$ | 22) $(1, 7)$ | 36) $(8, -3)$ |
| 9) $(3, 3)$ | 23) $(-3, -2)$ | 37) $(2, 0)$ |
| 10) $(4, 4)$ | 24) $(1, -3)$ | 38) $(2, 5)$ |
| 11) $(2, 6)$ | 25) $(1, 3)$ | 39) $(-4, 8)$ |
| 12) $(-3, 3)$ | 26) $(2, 1)$ | 40) $(2, 3)$ |
| 13) $(-2, -6)$ | 27) $(-2, 8)$ | |
| 14) $(0, 2)$ | 28) $(-4, 3)$ | |



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