

Above & Beyond - Systems by Substitution

Date_____

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Solve each system by substitution.

$$\begin{aligned} 1) \quad & -x - 3y = 22 \\ & y = -4x \end{aligned}$$

$$\begin{aligned} 2) \quad & 8x - 2y = 18 \\ & y = 4x - 9 \end{aligned}$$

$$\begin{aligned} 3) \quad & y = -2x - 6 \\ & -5x - 5y = 0 \end{aligned}$$

$$\begin{aligned} 4) \quad & y = 4 \\ & 5x - 5y = 20 \end{aligned}$$

$$\begin{array}{l} 5) \ y = -2x - 6 \\ \quad -5x - 7y = 15 \end{array}$$

$$\begin{array}{l} 6) \ 8x - 5y = 2 \\ \quad y = -3x - 5 \end{array}$$

$$\begin{array}{l} 7) \ y = -7x - 1 \\ \quad 2x - y = 10 \end{array}$$

$$\begin{array}{l} 8) \ y = -7 \\ \quad -x - y = 10 \end{array}$$

$$\begin{aligned} 9) \quad & 2x - 6y = -7 \\ & x - 3y = -4 \end{aligned}$$

$$\begin{aligned} 10) \quad & -3x + y = -8 \\ & -4x + 4y = 0 \end{aligned}$$

$$\begin{aligned} 11) \quad & -3x - 6y = -18 \\ & x - y = -9 \end{aligned}$$

$$\begin{aligned} 12) \quad & -3x - y = 3 \\ & x - 4y = -14 \end{aligned}$$

$$\begin{array}{l} 13) \ 5x + 3y = -16 \\ \quad x + 2y = 1 \end{array}$$

$$\begin{array}{l} 14) \ x + 5y = 1 \\ \quad -4x + 7y = -4 \end{array}$$

$$\begin{array}{l} 15) \ x + 2y = -8 \\ \quad -x + 7y = -10 \end{array}$$

$$\begin{array}{l} 16) \ x - 5y = 1 \\ \quad -7x - y = -7 \end{array}$$

Answers to Above & Beyond - Systems by Substitution

1) $(2, -8)$

4) $(8, 4)$

8) $(-3, -7)$

12) $(-2, 3)$

16) $(1, 0)$

2) Infinite number of solutions

5) $(-3, 0)$

9) No solution

13) $(-5, 3)$

3) $(-6, 6)$

6) $(-1, -2)$

10) $(4, 4)$

14) $(1, 0)$

7) $(1, -8)$

11) $(-4, 5)$

15) $(-4, -2)$