

Practice - Solving with Addition/Elimination

Solve each system by elimination.

1)
$$\begin{aligned} 4x + 2y &= 0 \\ -4x - 9y &= -28 \end{aligned}$$

29)
$$\begin{aligned} -8x - 8y &= -8 \\ 10x + 9y &= 1 \end{aligned}$$

3)
$$\begin{aligned} -9x + 5y &= -22 \\ 9x - 5y &= 13 \end{aligned}$$

31)
$$\begin{aligned} 9y &= 7 - x \\ -18y + 4x &= -26 \end{aligned}$$

5)
$$\begin{aligned} -6x + 9y &= 3 \\ 6x - 9y &= -9 \end{aligned}$$

33)
$$\begin{aligned} 0 &= 9x + 5y \\ y &= \frac{2}{7}x \end{aligned}$$

7)
$$\begin{aligned} 4x - 6y &= -10 \\ 4x - 6y &= -14 \end{aligned}$$

2)
$$\begin{aligned} -7x + y &= -10 \\ -9x - y &= -22 \end{aligned}$$

9)
$$\begin{aligned} -x - 5y &= 28 \\ -x + 4y &= -17 \end{aligned}$$

4)
$$\begin{aligned} -x - 2y &= -7 \\ x + 2y &= 7 \end{aligned}$$

11)
$$\begin{aligned} 2x - y &= 5 \\ 5x + 2y &= -28 \end{aligned}$$

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

13)
$$\begin{aligned} 10x + 6y &= 24 \\ -6x + y &= 4 \end{aligned}$$

8)
$$\begin{aligned} -3x + 3y &= -12 \\ -3x + 9y &= -24 \end{aligned}$$

15)
$$\begin{aligned} 2x + 4y &= -4 \\ 4x - 12y &= 8 \end{aligned}$$

10)
$$\begin{aligned} -10x - 5y &= 0 \\ -10x - 10y &= -30 \end{aligned}$$

17)
$$\begin{aligned} -7x + 4y &= -4 \\ 10x - 8y &= -8 \end{aligned}$$

12)
$$\begin{aligned} -5x + 6y &= -17 \\ x - 2y &= 5 \end{aligned}$$

19)
$$\begin{aligned} 5x + 10y &= 20 \\ -6x - 5y &= -3 \end{aligned}$$

14)
$$\begin{aligned} x + 3y &= -1 \\ 10x + 6y &= -10 \end{aligned}$$

21)
$$\begin{aligned} -7x - 3y &= 12 \\ -6x - 5y &= 20 \end{aligned}$$

16)
$$\begin{aligned} -6x + 4y &= 12 \\ 12x + 6y &= 18 \end{aligned}$$

23)
$$\begin{aligned} 9x - 2y &= -18 \\ 5x - 7y &= -10 \end{aligned}$$

18)
$$\begin{aligned} -6x + 4y &= 4 \\ -3x - y &= 26 \end{aligned}$$

25)
$$\begin{aligned} 9x + 6y &= -21 \\ -10x - 9y &= 28 \end{aligned}$$

20)
$$\begin{aligned} -9x - 5y &= -19 \\ 3x - 7y &= -11 \end{aligned}$$

27)
$$\begin{aligned} -7x + 5y &= -8 \\ -3x - 3y &= 12 \end{aligned}$$

22)
$$\begin{aligned} -5x + 4y &= 4 \\ -7x - 10y &= -10 \end{aligned}$$

$$24) \begin{aligned} 3x + 7y &= -8 \\ 4x + 6y &= -4 \end{aligned}$$

$$26) \begin{aligned} -4x - 5y &= 12 \\ -10x + 6y &= 30 \end{aligned}$$

$$28) \begin{aligned} 8x + 7y &= -24 \\ 6x + 3y &= -18 \end{aligned}$$

$$30) -7x + 10y = 13$$

$$4x + 9y = 22$$

$$32) \begin{aligned} 0 &= -9x - 21 + 12y \\ 1 + \frac{4}{3}y + \frac{7}{3}x &= 0 \end{aligned}$$

$$34) \begin{aligned} -6 - 42y &= -12x \\ x - \frac{1}{2} - \frac{7}{2}y &= 0 \end{aligned}$$



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4.3

Answers - Solving with 2 Variables - Elimination

- | | | |
|------------------------------------|------------------|-------------------------------------|
| 1) $\{-2, 4\}$ | 12) $\{1, -2\}$ | 25) $\{-1, -2\}$ |
| 2) $\{2, 4\}$ | 13) $\{0, 4\}$ | 26) $\{-3, 0\}$ |
| 3) No solution | 14) $\{-1, 0\}$ | 27) $\{-1, -3\}$ |
| 4) Infinite number of
solutions | 15) $\{8, 2\}$ | 28) $\{-3, 0\}$ |
| 5) No solution | 16) $\{0, 3\}$ | 29) $\{-8, 9\}$ |
| 6) Infinite number of
solutions | 17) $\{4, 6\}$ | 30) $\{1, 2\}$ |
| 7) No solution | 18) $\{-6, -8\}$ | 31) $\{-2, 1\}$ |
| 8) $\{2, -2\}$ | 19) $\{-2, 3\}$ | 32) $\{-1, 1\}$ |
| 9) $\{-3, -5\}$ | 20) $\{1, 2\}$ | 33) $\{0, 0\}$ |
| 10) $\{-3, 6\}$ | 21) $\{0, -4\}$ | 34) Infinite number of
solutions |
| 11) $\{-2, -9\}$ | 22) $\{0, 1\}$ | |
| | 23) $\{-2, 0\}$ | |
| | 24) $\{2, -2\}$ | |



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