

## Practice - Solving with Addition/Elimination

Solve each system by elimination.

1)  $4x + 2y = 0$

$-4x - 9y = -28$

3)  $-9x + 5y = -22$

$9x - 5y = 13$

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

$6x - 9y = -9$

7)  $4x - 6y = -10$

$4x - 6y = -14$

9)  $-x - 5y = 28$

$-x + 4y = -17$

11)  $2x - y = 5$

$5x + 2y = -28$

13)  $10x + 6y = 24$

$-6x + y = 4$

15)  $2x + 4y = -4$

$4x - 12y = 8$

17)  $-7x + 4y = -4$

$10x - 8y = -8$

19)  $5x + 10y = 20$

$-6x - 5y = -3$

21)  $-7x - 3y = 12$

$-6x - 5y = 20$

23)  $9x - 2y = -18$

$5x - 7y = -10$

25)  $9x + 6y = -21$

$-10x - 9y = 28$

27)  $-7x + 5y = -8$

$-3x - 3y = 12$

29)  $-8x - 8y = -8$

$10x + 9y = 1$

31)  $9y = 7 - x$

$-18y + 4x = -26$

33)  $0 = 9x + 5y$

$y = \frac{2}{7}x$

2)  $-7x + y = -10$

$-9x - y = -22$

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

$x + 2y = 7$

6)  $5x - 5y = -15$

$5x - 5y = -15$

8)  $-3x + 3y = -12$

$-3x + 9y = -24$

10)  $-10x - 5y = 0$

$-10x - 10y = -30$

12)  $-5x + 6y = -17$

$x - 2y = 5$

14)  $x + 3y = -1$

$10x + 6y = -10$

16)  $-6x + 4y = 12$

$12x + 6y = 18$

18)  $-6x + 4y = 4$

$-3x - y = 26$

20)  $-9x - 5y = -19$

$3x - 7y = -11$

22)  $-5x + 4y = 4$

$-7x - 10y = -10$

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

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

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

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

$$4x + 9y = 22$$

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

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



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## 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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