

Elimination Worksheet #2

Solve each system by elimination.

1)
$$\begin{aligned}x + 9y &= 19 \\ -3x - 9y &= -21\end{aligned}$$

2)
$$\begin{aligned}-x + y &= 12 \\ 5x + y &= -24\end{aligned}$$

3)
$$\begin{aligned}2x - 6y &= 8 \\ -4x + 3y &= 2\end{aligned}$$

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

5)
$$\begin{aligned}-6x - 10y &= 30 \\ -3x - 5y &= 13\end{aligned}$$

6)
$$\begin{aligned}10x + 9y &= -5 \\ 2x + 7y &= -27\end{aligned}$$

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

8)
$$\begin{aligned}5x - 9y &= 8 \\ 3x - 5y &= 6\end{aligned}$$

$$\begin{aligned} 9) \quad & 5x + 10y = -10 \\ & -4x - 4y = 12 \end{aligned}$$

$$\begin{aligned} 10) \quad & 5x - 5y = -20 \\ & 2x - 4y = -6 \end{aligned}$$

- 11) The school that Jose goes to is selling tickets to the annual talent show. On the first day of ticket sales the school sold 6 senior citizen tickets and 1 student ticket for a total of \$26. The school took in \$50 on the second day by selling 6 senior citizen tickets and 4 student tickets. What is the price each of one senior citizen ticket and one student ticket?
- 12) A plane traveled 360 miles each way to Kampala and back. The trip there was with the wind. It took 4 hours. The trip back was into the wind. The trip back took 9 hours. Find the speed of the plane in still air and the speed of the wind.
- 13) The sum of the digits of a certain two-digit number is 13. Reversing its digits decreases the number by 9. Find the number.
- 14) Imani's school is selling tickets to the annual talent show. On the first day of ticket sales the school sold 3 senior citizen tickets and 7 student tickets for a total of \$96. The school took in \$194 on the second day by selling 7 senior citizen tickets and 13 student tickets. Find the price of a senior citizen ticket and the price of a student ticket.