

6.3 Solving Systems using the Elimination HW-1

Solve each system using Addition.

$$\begin{aligned} 1) \quad & 9x - 9y = 0 \\ & 9x + 9y = 18 \end{aligned}$$

$$\begin{aligned} 2) \quad & -4x + 9y = -7 \\ & 4x - y = -17 \end{aligned}$$

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

$$\begin{aligned} 4) \quad & 4x - y = 0 \\ & 10x + y = 28 \end{aligned}$$

Solve each system using Substraction

$$\begin{aligned} 5) \quad & -3x - 9y = -9 \\ & -3x + 5y = -23 \end{aligned}$$

$$\begin{aligned} 6) \quad & -7x + 7y = 14 \\ & -6x + 7y = 9 \end{aligned}$$

$$\begin{aligned} 7) \quad & -2x - 3y = -28 \\ & x - 3y = -22 \end{aligned}$$

$$\begin{aligned} 8) \quad & -2x - 6y = 16 \\ & -5x - 6y = 22 \end{aligned}$$

Solve each system by arranging like terms in standard form first. $Ax+By=C$

$$\begin{aligned} 9) \quad 0 &= -9y - 12 + 2x \\ -4 &= 2x - y \end{aligned}$$

$$\begin{aligned} 10) \quad 0 &= 4x - 4y - 60 \\ \frac{1}{3}x &= -1 - \frac{2}{3}y \end{aligned}$$

$$\begin{aligned} 11) \quad 8y &= -7x + 19 \\ 8y + 6 &= -2x \end{aligned}$$

$$\begin{aligned} 12) \quad 29 + 10x &= 3y \\ 6y + 2 &= -10x \end{aligned}$$

Solve the story problem

1. Write a system of equations.

2. Solve the system of equations using elimination method.

- 13) Kali's school is selling tickets to the annual talent show. On the first day of ticket sales the school sold 1 adult ticket and 2 student tickets for a total of \$16. The school took in \$36 on the second day by selling 1 adult ticket and 6 student tickets. Find the price of an adult ticket and the price of a student ticket.