

Solving a System of Equations Unit Review

Date _____

Solve each system using any method.

1)
$$\begin{aligned} -9x + 7y &= -30 \\ 9x - 2y &= 15 \end{aligned}$$

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

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

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

5)
$$\begin{aligned} -4x + 7y &= 23 \\ y &= -3x - 11 \end{aligned}$$

6)
$$\begin{aligned} x - y &= 0 \\ -8x - 6y &= 0 \end{aligned}$$

7)
$$\begin{aligned} 5x + 4y &= -15 \\ 3x + y &= -9 \end{aligned}$$

8)
$$\begin{aligned} 3x + 3y &= 20 \\ -6x - 6y &= -30 \end{aligned}$$

9)
$$\begin{aligned} 18y + 12 &= -6x \\ -x - 26 &= -9y \end{aligned}$$

10)
$$\begin{aligned} y &= -5x - 11 \\ 15x + 3y &= -33 \end{aligned}$$

$$\begin{aligned} 11) \quad & -2x - 5y = 12 \\ & x + 6y = -13 \end{aligned}$$

$$\begin{aligned} 12) \quad & y = -3 \\ & y = 7x + 4 \end{aligned}$$

$$\begin{aligned} 13) \quad & y = x - 3 \\ & y = -\frac{3}{4}x + 4 \end{aligned}$$

$$\begin{aligned} 14) \quad & 10x + 12y = -6 \\ & -7x - 6y = 21 \end{aligned}$$

15) Daniel and Davis are selling cheesecakes for a school fundraiser. Customers can buy French silk cheesecakes and apple cheesecakes. Daniel sold 12 French silk cheesecakes and 12 apple cheesecakes for a total of \$288. Davis sold 2 French silk cheesecakes and 10 apple cheesecakes for a total of \$144. Find the cost each of one French silk cheesecake and one apple cheesecake.

16) Jimmy's school is selling tickets to a play. On the first day of ticket sales the school sold 6 adult tickets and 13 student tickets for a total of \$197. The school took in \$229 on the second day by selling 12 adult tickets and 11 student tickets. Find the price of an adult ticket and the price of a student ticket.