

S3 Solving Systems of 2 Equations

Date _____ Period _____

Solve each system by elimination.

1)
$$\begin{aligned} -10x + 9y &= 15 \\ 20x - 6y &= 30 \end{aligned}$$

2)
$$\begin{aligned} -3x - 3y &= -24 \\ -6x - 6y &= 12 \end{aligned}$$

3)
$$\begin{aligned} -\frac{8}{5}x - \frac{9}{5}y &= 5 \\ -5x - 5y &= 10 \end{aligned}$$

4)
$$\begin{aligned} -\frac{10}{3}x + \frac{4}{3}y &= -4 \\ 7x - 9y &= -4 \end{aligned}$$

5)
$$\begin{aligned} -18x + 5y &= 28 \\ 9x + 7y &= 5 \end{aligned}$$

6)
$$\begin{aligned} 8x - 10y &= -6 \\ -16x + 20y &= 12 \end{aligned}$$

7) Mei's school is selling tickets to the annual dance competition. On the first day of ticket sales the school sold 1 senior citizen ticket and 12 child tickets for a total of \$146. The school took in \$108 on the second day by selling 3 senior citizen tickets and 6 child tickets. What is the price each of one senior citizen ticket and one child ticket?

8) The senior classes at High School A and High School B planned separate trips to the water park. The senior class at High School A rented and filled 7 vans and 9 buses with 560 students. High School B rented and filled 14 vans and 1 bus with 168 students. Every van had the same number of students in it as did the buses. Find the number of students in each van and in each bus.