

Solve each system by substitution.

$$\begin{aligned} 1) \quad y &= -4x + 10 \\ y &= -5x + 13 \end{aligned}$$

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

$$\begin{aligned} 3) \quad 4x - 2y &= 3 \\ y &= 2x + 1 \end{aligned}$$

$$\begin{aligned} 4) \quad y &= -8x - 9 \\ -2x + 5y &= -3 \end{aligned}$$

$$\begin{aligned} 5) \quad y &= 4x + 17 \\ 6x + 8y &= -16 \end{aligned}$$

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

$$\begin{aligned} 7) \quad x + y &= 3 \\ 2x + 4y &= 16 \end{aligned}$$

$$\begin{aligned} 8) \quad 3x + y &= -21 \\ 4x - 2y &= -8 \end{aligned}$$

$$\begin{aligned} 9) \quad -8x - y &= -15 \\ x - 5y &= 7 \end{aligned}$$

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

Solve each system by elimination.

$$\begin{aligned} 11) \quad -3x + 8y &= 9 \\ 3x + y &= -9 \end{aligned}$$

$$\begin{aligned} 12) \quad 8x - 8y &= 8 \\ 8x - 2y &= -4 \end{aligned}$$

$$\begin{aligned} 13) \quad -14x + 4y &= 12 \\ 7x - y &= 4 \end{aligned}$$

$$\begin{aligned} 14) \quad 2x + 6y &= 24 \\ 10x + 8y &= -12 \end{aligned}$$

$$\begin{aligned} 15) \quad 2x - 6y &= -18 \\ 8x - 12y &= -24 \end{aligned}$$

$$\begin{aligned} 16) \quad 3x - y &= 12 \\ x - 11y &= 4 \end{aligned}$$

$$\begin{aligned} 17) \quad & -8x + 8y = 24 \\ & 8x - 7y = -27 \end{aligned}$$

$$\begin{aligned} 18) \quad & -4x + y = -3 \\ & -x - y = -2 \end{aligned}$$

$$\begin{aligned} 19) \quad & 6x + 2y = 14 \\ & 6x + 5y = 17 \end{aligned}$$

$$\begin{aligned} 20) \quad & -x - y = 10 \\ & -x + 2y = -17 \end{aligned}$$

- 21) Emily's school is selling tickets to a fall musical. On the first day of ticket sales the school sold 3 adult tickets and 7 student tickets for a total of \$64. The school took in \$52 on the second day by selling 9 adult tickets and 1 student ticket. What is the price each of one adult ticket and one student ticket?
- 22) The school that Julia goes to is selling tickets to the annual talent show. On the first day of ticket sales the school sold 9 adult tickets and 12 child tickets for a total of \$147. The school took in \$63 on the second day by selling 3 adult tickets and 6 child tickets. Find the price of an adult ticket and the price of a child ticket.
- 23) The senior classes at High School A and High School B planned separate trips to Yellowstone National Park. The senior class at High School A rented and filled 2 vans and 10 buses with 312 students. High School B rented and filled 8 vans and 5 buses with 268 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.
- 24) 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 12 buses with 601 students. High School B rented and filled 12 vans and 2 buses with 176 students. Each van and each bus carried the same number of students. Find the number of students in each van and in each bus.
- 25) Shayna and Amanda are selling cookie dough for a school fundraiser. Customers can buy packages of sugar cookie dough and packages of gingerbread cookie dough. Shayna sold 6 packages of sugar cookie dough and 5 packages of gingerbread cookie dough for a total of \$196. Amanda sold 1 package of sugar cookie dough and 2 packages of gingerbread cookie dough for a total of \$56. What is the cost each of one package of sugar cookie dough and one package of gingerbread cookie dough?