

Practice Test A

In Problems 1 – 7, solve each system of equations.

$$1. \begin{cases} 2x - y = 4 \\ 2x + y = 4 \end{cases}$$

$$2. \begin{cases} x + 2y = 8 \\ 3x + 6y = 24 \end{cases}$$

$$3. \begin{cases} -2x + y = 4 \\ 4x - 2y = 4 \end{cases}$$

$$4. \begin{cases} 3x - 3y = -15 \\ 2x - 2y = -10 \end{cases}$$

$$5. \begin{cases} \frac{5}{3}x + \frac{y}{2} = 14 \\ \frac{2}{3}x - \frac{y}{8} = 3 \end{cases}$$

$$6. \begin{cases} y = x^2 \\ 3x - y + 4 = 0 \end{cases}$$

$$7. \begin{cases} x - 3y = -4 \\ 2x^2 + 3x - 3y = 8 \end{cases}$$

8. Two gold bars together weigh a total of 485 pounds. One bar weighs 15 pounds more than the other.

a. Write a system of equations that describes these relationships.

b. How much does each bar weigh?

9. Graph the inequality $3x + y < 6$.

10. Graph the solution set of the system of inequalities:

$$\begin{cases} y - x^2 \geq 3 \\ y - x < 0 \end{cases}$$