

Independent Practice

Equations and Inequalities

A.4e

Read and solve.

1. What is the solution of the following system of equation?
$$\begin{aligned} 2x - 6 &= 2y \\ 3 - 2x &= y \end{aligned}$$

A. $x = -2, y = -3$
B. $x = 0, y = -3$
C. $x = 1, y = -2$
D. $x = 2, y = -1$
2. The length of a rectangle is 2 centimeters longer than its width. The perimeter is 16 centimeters. What are the length and width of the rectangle?
A. 7 cm, 5 cm
B. 6 cm, 4 cm
C. 5 cm, 3 cm
D. 4 cm, 2 cm
3. Which is the solution of the following system of equations:
$$\begin{aligned} 2x + y &= 4 \\ 3x - y &= -14 \end{aligned}$$

A. $(-2, 8)$
B. $(-2, 0)$
C. $(2, 0)$
D. $(0, -2)$
4. One competitor in a 100-mile bicycle race took a total of 5 hours to complete the course. His average speed in the morning was 23 miles per hour. His average speed in the afternoon was 13 miles per hour. How many hours did he ride in the morning, and how many hours did he ride in the afternoon?
A. Morning: 2.5 hours, Afternoon: 2.5 hours
B. Morning: 3 hours, Afternoon: 2 hours
C. Morning: 3.5 hours, Afternoon: 1.5 hours
D. Morning: 4 hours, Afternoon: 1 hour
5. Which is the solution of the following system of equations:
$$\begin{aligned} y &= -x \\ 2x - y &= 6 \end{aligned}$$

A. $(6, -6)$
B. $(2, -2)$
C. $(0, 0)$
D. $(-2, 2)$
6. Which is the solution of the following system of equations:
$$\begin{aligned} -3x + 7y &= 3 \\ y &= 6 \end{aligned}$$

A. $(3, 6)$
B. $(13, 6)$
C. $(-6, 6)$
D. $(-15, 6)$

Independent Practice—continued

7. The sum of two numbers is 25. One number is twice the second plus seven. What are the two numbers?

- A. 2, 23
- B. 5, 7
- C. 6, 19
- D. 12, 13

8. Which is the solution of the following system of equations:
 $2x + y = 5$
 $3x - 2y = 4$

- A. (-1, 2)
- B. (0, 9)
- C. (1, 2)
- D. (2, 1)

9. The concession stand sells pizza and drinks during football games. Jack bought 4 drinks and 6 slices of pizza and paid \$6.70. Amy bought 4 slices of pizza and 3 drinks and paid \$4.65. What price is each drink and each slice of pizza?

- A. drinks: \$1.00 each, pizza: \$1.50 each
- B. drinks: \$0.75 each, pizza: \$1.00 each
- C. drinks: \$0.55 each, pizza: \$0.70 each
- D. drinks: \$0.55 each, pizza: \$0.75 each

10. Which is the solution of the following system of equations:
 $x = 4$
 $y = 6x - 3$

- A. (7/6, 4)
- B. (4, 7)
- C. (4, 21)
- D. (7, 4)