SOL Warm-Up
Graphing Calculator Active

A.4e (a) Solving systems of two linear equations in two variables

1. What is the solution to the system of equations? $\begin{cases} y = x + 4 \\ y = \frac{3}{2}x + 10 \end{cases}$

A (12, 16)
B (-12, 8)
C (-12, -8)
D (0, -16)

2. What is the solution to the system of equations? $\begin{cases} x + y = 4 \\ x - y = 6 \end{cases}$

A (1, 5)
B (5, -1)
C (5, 1)
D (-2, 4)

3. What is the solution to the system of equations? $\begin{cases} 2x - y = 5 \\ x - y = 4 \end{cases}$

A (3, -1)
B (9, 5)
C (2, -1)
D (1, -3)

4. How many solutions does the following system have? $\begin{cases} 4x + 2y = 8 \\ x + y = 4 \end{cases}$

A no solution
B one
C two
D infinite

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A.4e (b) Solving systems of two linear equations in two variables

1. What is the solution to the system of equations?

$$\begin{cases} x = 2y + 3 \\ 4x - 5y = 9 \end{cases}$$

A (2, 7)
B (1, -1)
C (5, 1)
D (7, 5)

2. What is the solution to the system of equations?

$$\begin{cases} x = 5y \\ 2x + 5y = 15 \end{cases}$$

A (1, 5)
B (0, 3)
C (5, 1)
D (5, 3)

3. What is the solution to the system of equations?

$$\begin{cases} x - 5y = 20 \\ x + 3y = -4 \end{cases}$$

A (10, -2)
B (60, 8)
C (5, -3)
D (-10, 2)

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A.4e (c) Solving systems of two linear equations in two variables

1. What is the solution to the system of equations?

$$\begin{cases} 3x + 5y = 16 \\ 8x - 5y = 28 \end{cases}$$

A $(4, \frac{4}{5})$
B $(5, \frac{1}{5})$
C $(-6, \frac{34}{5})$
D (7, 1)

2. What is the solution to the system of equations?

$$\begin{cases} 5x + 4y = -10 \\ 3x + 6y = -6 \end{cases}$$

A (0, -2)
B (2, -5)
C (-2, 0)
D (-2, 5)

3. What is the value of y in the equation x + 7y = 16, if (2, y) is a solution of the equation?

A -16
B -2
C 2
D 16

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A.4e (d) Solving systems of two linear equations in two variables

1. There are 33 students in an Algebra I class. There are 7 fewer girls than boys. How many girls are in the class?

A 13
B 18
C 20
D 26

2. A rectangle's length is 8 meters more than three times the width. The perimeter is 80 meters. What is the length?

A 8 m
B 24 m
C 32 m
D 40 m

3. Bob bought 8 hockey tickets for $59. Adult tickets cost $10 each and child tickets cost $3 each. How many adult tickets did he buy?

A 3
B 4
C 5
D 6

4. A ball bag contains 44 baseballs. The number of new baseballs is 4 less than twice the number of used baseballs. Which system of equations could you use to find the number of new baseballs, x, and the number of used baseballs, y?

A $x - y = 44$; $y = 2x - 14$
B $x + y = 44$; $x = 2y - 4$
C $x + y = 44$; $y = 2x - 14$
D $x - y = 44$; $x = 2y + 4$