

SOL Warm-Up

Graphing Calculator Active

A.9a Solving systems of two linear equations in two variables

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

$$y = x + 4$$
$$y = \frac{3}{2}x + 10$$

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

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

$$x + y = 4$$
$$x - y = 6$$

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

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

$$2x - y = 5$$
$$x - y = 4$$

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

4. How many solutions does the following system have?

$$4x + 2y = 8$$
$$x + y = 4$$

- A** no solution
- B** one
- C** two
- D** infinite

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A.9b Solving systems of two linear equations in two variables

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

$$x = 2y + 3$$

$$4x - 5y = 9$$

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

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

$$x = 5y$$

$$2x + 5y = 15$$

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

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

$$x - 5y = 20$$

$$x + 3y = -4$$

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

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A.9c Solving systems of two linear equations in two variables

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

$$3x + 5y = 16$$

$$8x - 5y = 28$$

- 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?

$$5x + 4y = -10$$

$$3x + 6y = -6$$

- 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.9d 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 $x - y = 44$; $x = 2y + 4$