

Name: _____

Date: _____

1. In the equations below, a is the price, in dollars, of an adult ticket to a school play, and s is the price of a student ticket.

$$5a + 3s = 42$$

$$3a + s = 22$$

What is the price of an adult ticket to the play?

- A. \$4
- B. \$5
- C. \$6
- D. \$10

2. What value of x satisfies the system of equations below?

$$x + y = 7$$

$$x + 2y = 5$$

- A. 9
- B. 6
- C. 3
- D. 62

3. In a game, the two players scored a total of 121 points. One player had 13 more points than the other player. How many points did the player with the fewer points score?

- A. 52
 - B. 54
 - C. 67
 - D. 108
-

Math 8 Unit 7 CCGPS EOUT (math8unit7ccgpsEOUT)

4. A rectangle has a perimeter of 44 inches and an area of 72 square inches. What are the lengths of the sides of the rectangle?

- A. 2 inches and 36 inches
- B. 4 inches and 18 inches
- C. 8 inches and 9 inches
- D. 11 inches and 11 inches

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5. Mr. Johnson purchased 20 concert tickets for a total of \$225. The concert tickets cost \$15 for adults and \$10 for children under 12. How many tickets for children under 12 did Mr. Johnson purchase?

- A. 5
- B. 9
- C. 15
- D. 18

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6.

Given the system of the following two linear equations:

$$x + 2y = 7$$

$$3x - y = 2$$

What would be the first step in eliminating the variable y ?

- A. Multiply the second equation by 2.
 - B. Add the two equations.
 - C. Add 5 to both sides of the second equation.
 - D. Rewrite the equations so that y is on the right side.
-

7. Given the system of the following linear equations:

$$2x - 3y = 12$$

$$5x + 4y = 7$$

Solve for x and y .

- A. (-2, 3)
 - B. (-2, -3)
 - C. (3, 2)
 - D. (3, -2)
-

8. The solution set for a pair of equations is (3,-1). One of the equations is $2y = x - 5$. Which of the following could be the other equation?

- A. $4y = 2x$
 - B. $y = x + 2$
 - C. $y = x - 4$
 - D. $2y = x + 3$
-

9.

What are the x and y values in this system of equations?

$$2x + 4y = 8$$

$$2y = x + 8$$

- A. (-2, 1)
 - B. (-2, 3)
 - C. (-4, 2)
 - D. (-4, 4)
-

10.

Amy needed to rent a car for a day so she researched two rental companies. Company A charges a flat rate of \$25 plus \$0.15 for every mile she drove the car. Company B charges a flat rate of \$50 plus \$0.05 for every mile she drove the car. If Amy had to drive a total of 370 miles, which rental car company would be a better deal and by how much?

- A. Company A by \$12
 - B. Company A by \$80.50
 - C. Company B by \$12
 - D. Company B by \$68.50
-

11.

Sophia has 8 books in her locker. All the books are either school books or personal books. She has three times as many school books than personal books. How many school books does Sophia have in her locker?

- A. 2
 - B. 3
 - C. 6
 - D. 7
-

12. Karen makes \$5 per hour baby-sitting and \$12 per hour giving music lessons. One weekend, she worked a total of 18 hours and made \$139. How many hours did she spend baby-sitting?

- A. 11
- B. 9
- C. 7
- D. 6

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13.
$$\begin{cases} x - y = 5 \\ x + y = 7 \end{cases}$$

What is the solution to the system of equations shown above?

- A. $x = 6, y = 1$
- B. $x = 4, y = 3$
- C. $x = 1, y = 6$
- D. $x = 6, y = 7$

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14. The Arcadia Theater charges \$4 for adult tickets and \$3 for student tickets. Mr. Steele purchased 9 tickets (some student and some adult) for \$31. Which system of equations could be used to find a , the number of adult tickets, and s , the number of student tickets Mr. Steele purchased?

A.
$$\begin{cases} a + s = 31 \\ 4a + 3s = 9 \end{cases}$$

B.
$$\begin{cases} 4a + 3s = 31 \\ a + s = 9 \end{cases}$$

C.
$$\begin{cases} 3a + 4s = 31 \\ a + s = 9 \end{cases}$$

D.
$$\begin{cases} 3a + 4s = 9 \\ a + s = 31 \end{cases}$$

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15.
$$\begin{cases} 3x + y = 11 \\ y = x + 3 \end{cases}$$

Which is the solution to the system of equations shown?

A. (4, 7)

B. (2, 17)

C. (2, 5)

D. $\left(\frac{1}{2}, 3\frac{1}{2}\right)$

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16. The difference in cost between a large bag of chips and a small bag of chips was 90¢. Alicia bought 5 large bags and 3 small bags of chips for her party and spent \$17.22. What was the cost of a small bag of chips?

A. \$5.74

B. \$2.49

C. \$2.15

D. \$1.59

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17. Jean surveyed 25% of all the eighth graders and 75% of all the seventh graders at her school. Keisha surveyed 50% of all the eighth graders and 50% of all the seventh graders at the same school.

ÉJean surveyed a total of 152 students.

ÉKeisha surveyed a total of 144 students.

What is the number of eighth graders at Jean and Keisha's school?

- A. 110
- B. 128
- C. 160
- D. 186