

SAT Systems of Equations Worksheet

Name: _____ Date: _____

Circle one answer for each question. Use the blank space for calculations. A calculator is allowed.

1. The equations $x + y = 11$ and $x - y = 3$ hold. What is x ?

- A. 8
- B. 14
- C. 7
- D. 4

2. If $2x + y = 13$ and $y = 3x - 2$, what is y ?

- A. 7
- B. 5
- C. 9
- D. 3

3. A school sells adult tickets for \$8 and student tickets for \$5. It sells 40 tickets for a total of \$260. How many adult tickets did it sell?

- A. 25
- B. 15
- C. 30
- D. 20

4. If $3x + 2y = 17$ and $2x + 3y = 18$, what is $x + y$?
- A. 5
 - B. 7
 - C. 3
 - D. 4
5. For which value of k does the system $2x + 3y = 9$ and $4x + ky = 20$ have no solution?
- A. 3
 - B. 9
 - C. 12
 - D. 6
6. The equations $6x - 4y = 12$ and $3x - 2y = c$ describe the same line. What is c ?
- A. 4
 - B. 12
 - C. 6
 - D. 3

7. If $4x + y = 23$ and $x + y = 8$, what is x ?

- A. 3
- B. 4
- C. 5
- D. 8

8. If $y = 2x + 1$ and $3x + 2y = 23$, what is x ?

- A. 2
- B. 3
- C. 5
- D. 7

9. A collection contains 18 coins, all nickels or dimes, worth \$1.35 altogether. How many dimes are in the collection?

- A. 6
- B. 9
- C. 12
- D. 15

10. The system $ax + 2y = 8$ and $3x + 6y = 24$ has infinitely many solutions. What is a ?

- A. 1
- B. 2
- C. 3
- D. 6

11. If $5x - y = 9$ and $2x + y = 12$, what is $7x$?

- A. 3
- B. 9
- C. 21
- D. 24

12. A system consists of $2x - 3y = 4$ and $4x - 6y = 10$. How many solutions does it have?

- A. Zero
- B. One
- C. Two
- D. Infinitely many