

Unit 13: Systems of Equations

Name: _____

Date: _____

1. Solve the following system of equations for x :

$$\begin{aligned}x + y &= 6 \\x - y &= 2\end{aligned}$$

2. Solve the following system of equations algebraically and check:

$$\begin{aligned}x - 4y &= 16 \\y &= 1 - x\end{aligned}$$

3. Solve the following system of equations for x :

$$\begin{aligned}3x + y &= 9 \\2x - y &= 6\end{aligned}$$

4. Solve the following system of equations algebraically and check:

$$\begin{aligned}3x + 2y &= 6 \\5x - 3y &= -28\end{aligned}$$

5. Solve the following systems of equations for x :

$$\begin{aligned}2x + 3y &= 5 \\4x - 3y &= 1\end{aligned}$$

6. Solve the following system of equations graphically and check:

$$\begin{aligned}3x + y &= 3 \\y &= 2x - 7\end{aligned}$$

7. Solve the following system of equations algebraically and check:

$$\begin{aligned}x - \frac{1}{2}y &= 4 \\x + y &= 7\end{aligned}$$

8. What is the solution for the following system of equations?

$$\begin{aligned}2x + y &= 7 \\x - 2y &= 6\end{aligned}$$

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

9. Which ordered pair is the solution to this system of equations?

$$\begin{aligned}y &= x + 4 \\x + y &= 2\end{aligned}$$

- A. (1, 5) B. (0, 2)
C. (-1, 3) D. (-4, 0)

10. What is the solution for the following system of equations?

$$\begin{aligned}x &= -y \\x + 2y &= 6\end{aligned}$$

- A. (-2, 2) B. (2, -2)
C. (6, -6) D. (-6, 6)

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11. Solve the following system of equations for y :

$$\begin{aligned} 2x + y &= 12 \\ -2x + 3y &= -4 \end{aligned}$$

12. Which ordered pair is the solution set for this system of equations?

$$\begin{aligned} x + y &= 8 \\ y &= x - 3 \end{aligned}$$

- A. (2.5, 5.5) B. (4, 1)
C. (4, 4) D. (5.5, 2.5)

13. Which ordered pair is the solution to this system of equations?

$$\begin{aligned} 2x - y &= 10 \\ x + y &= 2 \end{aligned}$$

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

14. What is the solution for x in the following system of equations?

$$\begin{aligned} -y &= 2x - 3 \\ y &= -x + 1 \end{aligned}$$

- A. $\frac{2}{3}$ B. 2 C. $\frac{4}{3}$ D. 4

15. Which ordered pair is the solution of this system of equations

$$\begin{aligned} 3x + 27 &= 4 \\ -2x + 2y &= 24 \end{aligned}$$

- A. (-4, 8) B. (-4, -8)
C. (2, -1) D. (2, -5)

16. What is the solution set of the following system of equations?

$$\begin{aligned} x + y &= 7 \\ x - y &= 3 \end{aligned}$$

- A. (3, 4) B. (5, 2)
C. (10, -3) D. (8, -1)

17. Which ordered pair is the solution of the following system of equations?

$$\begin{aligned} 3x + 2y &= 4 \\ -2x + 2y &= 24 \end{aligned}$$

- A. (2, -1) B. (2, -5)
C. (-4, 8) D. (-4, -8)

18. What is a solution for the system of equations $x - y = 2$ and $y = 2x - 4$?

- A. (0, 2) B. (2, 0) C. (3, 2) D. (4, 2)

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19. What is the value of y in the following system of equations?

$$\begin{aligned} 2x + 3y &= 6 \\ 2x + y &= -2 \end{aligned}$$

- A. 1 B. 2 C. -3 D. 4

20. When solved graphically, which system of equations will have *exactly* one point of intersection?

A. $y = -x - 20$ B. $y = 0.5x + 30$
 $y = x + 17$ $y = 0.5x - 30$

C. $y = \frac{3}{5}x + 12$ D. $y = -x + 15$
 $y = 0.6x - 19$ $y = -x + 25$

21. Which ordered pair satisfies the system of equations below?

$$\begin{aligned} 3x - y &= 8 \\ x + y &= 2 \end{aligned}$$

- A. (3, -1) B. (2.5, -0.5)
C. (2.5, 0.5) D. (5, -3)

22. If $x + y = -10$ and $x - y = 2$, what is the value of x ?

- A. -6 B. 6 C. -4 D. 4

23. What is the value of the y -coordinate of the solution to the system of equations $x + 2y = 9$ and $x - y = 3$?

- A. 6 B. 2 C. 3 D. 5

24. What is the value of the y -coordinate of the solution to the system of equations $x - 2y = 1$ and $x + 4y = 7$?

- A. 1 B. -1 C. 3 D. 4

25. On the grid below, solve the system of equations graphically for x and y .

$$\begin{aligned} 4x - 2y &= 10 \\ y &= -2x - 1 \end{aligned}$$



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26. What is the solution of the system of equations $c + 3d = 8$ and $c = 4d - 6$?

- A. $c = -14, d = -2$ B. $c = -2, d = 2$
C. $c = 2, d = 2$ D. $c = 14, d = -2$

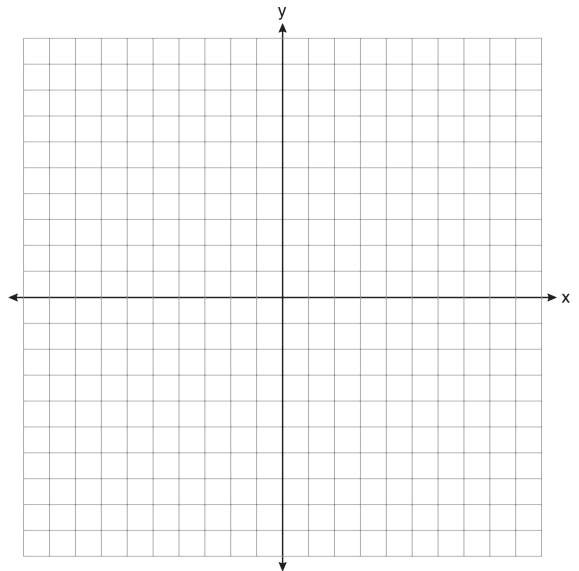
27. What is the value of the y -coordinate of the solution to the system of equations $2x + y = 8$ and $x - 3y = -3$?

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

28. On the set of axes below, solve the following system of equations graphically. State the coordinates of the solution.

$$y = 4x - 1$$

$$2x + y = 5$$



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| <p>1.
Answer: 4</p> <p>2.
Answer: $x = 4, y = -3$</p> <p>3.
Answer: 3</p> <p>4.
Answer: $(-2, 6)$</p> <p>5.
Answer: 1</p> <p>6.
Answer: [graph]</p> <p>7.
Answer: $x = 5, y = 2$</p> <p>8.
Answer: D</p> <p>9.
Answer: C</p> <p>10.
Answer: D</p> <p>11.
Answer: 2</p> <p>12.
Answer: D</p> <p>13.
Answer: A</p> <p>14.
Answer: B</p> <p>15.
Answer: A</p> <p>16.
Answer: B</p> <p>17.
Answer: C</p> <p>18.
Answer: B</p> <p>19.
Answer: D</p> | <p>20.
Answer: A</p> <p>21.
Answer: B</p> <p>22.
Answer: C</p> <p>23.
Answer: B</p> <p>24.
Answer: A</p> <p>25.</p> <p>26.
Answer: C</p> <p>27.
Answer: B</p> <p>28.
Answer: Correct graphs are drawn, and at least one is labeled, and $(1, 3)$ or $x = 1, y = 3$ is stated.</p> |
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