

# Algebra 1

## Practice Chapter 6 Test

NAME \_\_\_\_\_

**Write the letter for the best answer in the blank at the right. (4 Points)**

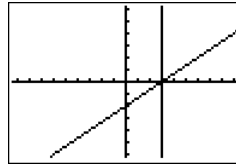
1. What kind of system of equations is  $5y = 3x - 10$  and  $-3x + 5y = 15$ .  
 A. consistent and independent      B. consistent and dependent  
 C. inconsistent                              D. inconsistent and dependent

2. What kind of system of equations is  $2y = 3x - 12$  and  $4x - 2y = 8$ .  
 A. consistent and independent      B. consistent and dependent  
 C. inconsistent                              D. inconsistent and dependent

3. What kind of system of equations is  $2x + 4y = 8$  and  $4x + 8y = 16$ .  
 A. consistent and independent      B. consistent and dependent  
 C. inconsistent                              D. inconsistent and dependent

4. State the solution of the system of equations graphed below.

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



1. \_\_\_\_\_

2. \_\_\_\_\_

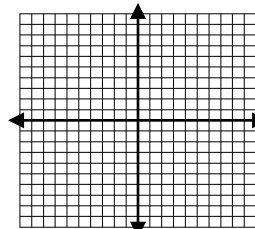
3. \_\_\_\_\_

4. \_\_\_\_\_

**Solve #5 - #8 by Graphing (show work)**

5.  $-6x + 3y = 6$  and  $2y = 6x + 12$

- A. (-4, 6)      B. (0, 6)      C. (3, 8)      D. (1, -7)



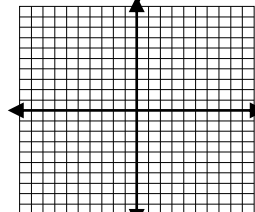
5. \_\_\_\_\_

6. \_\_\_\_\_

7. \_\_\_\_\_

6.  $-3x + 4y = 24$  and  $4x - y = 7$

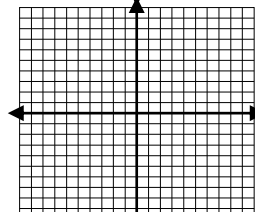
- A. (3, 1)      B. (-1, 5)      C. (4, 9)      D.  $\emptyset$



8. \_\_\_\_\_

7.  $3x + 2y = 10$  and  $2x + 3y = 10$

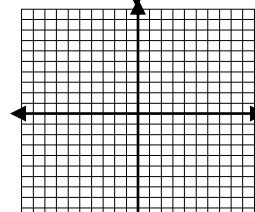
- A. (6, 1)      B. (2, 2)      C. (1, 4)      D.  $\emptyset$



Points(32) \_\_\_\_\_

8.  $5x + 4y = 3$  and  $y = -2x + 3$

- A. (3, -3)      B. (2, -2)      C.  $\mathcal{R}$       D.  $\emptyset$



**Solve #9 - #14 by Substitution (show work)**

9.  $y = 5x + 1$  and  $4x + y = 10$

- A. (1, 6)    B. (-1, 14)    C. (2, 5)    D. (-2, 18)

10.  $3x - y = 2$  and  $-4x + 2y = -10$

- A. (3, 7)    B.  $(\frac{2}{3}, \frac{25}{3})$     C. (-3, -11)    D. (2, -3)

11.  $3x + y = 6$  and  $4x + 2y = 8$

- A. (2, 0)    B. (-2, 12)    C. (3, 1)    D.  $(-\frac{4}{3}, \frac{23}{3})$

12.  $2x - 2y = -2$  and  $-3x + 3y = -3$

- A. (-1, 0)    B.  $(-\frac{29}{11}, -\frac{9}{11})$     C. (1, 2)    D.  $\emptyset$

13.  $-4x + 2y = 2$  and  $3x + y = -9$

- A. (1, -8)    B. (-1, 3)    C. (2, -15)    D. (-2, -3)

14.  $x + 2y = 6$  and  $3x - 4y = 28$

- A. (8, -1)    B.  $(\frac{10}{3}, \frac{13}{3})$     C. (-8, 7)    D.  $(\frac{25}{3}, \frac{20}{3})$

**Solve #15 - #20 by Elimination (show work)**

15.  $5x + 6y = -8$  and  $2x + 3y = -5$

- A. (-2, 3)    B. (6, -2)    C. (2, -3)    D. (-6, 2)

16.  $4x + 2y = 8$  and  $3x + 3y = 9$

- A. (4, -3)    B. (-4, 6)    C. (-1, 6)    D. (1, 2)

17.  $5x + 3y = -17$  and  $4x + 2y = -14$

- A. (4, -9)    B. (-4, 1)    C. (-2, -6)    D. (2, 10)

9. \_\_\_\_\_

10. \_\_\_\_\_

11. \_\_\_\_\_

12. \_\_\_\_\_

13. \_\_\_\_\_

14. \_\_\_\_\_

15. \_\_\_\_\_

16. \_\_\_\_\_

17. \_\_\_\_\_

Points(36) \_\_\_\_\_

18.  $x - y = -8$  and  $7x + 5y = 16$

- A. (-2, 6)    B. (-4, 6)    C. (1, 5)    D.  $\emptyset$

19.  $6x + y = -39$  and  $3x + 2y = -15$

- A. (6, -2)    B. (-3, 2)    C. (-1, 6)    D. (-7, 3)

20.  $x + 5y = 17$  and  $-4x + 3y = 24$

- A. (4, 12)    B. (3, 10)    C. (-5, 12)    D. (-3, 4)

18. \_\_\_\_\_

**Solve #21 - #24 by ANY METHOD (show work)**

19. \_\_\_\_\_

21.  $3x - 2y = -7$  and  $2x - 5y = 10$

20. \_\_\_\_\_

- A. (-2, 3)    B. (4, 8)    C. (-5, -4)    D.  $\emptyset$

21. \_\_\_\_\_

22.  $2x + 3y = 6$  and  $x + 2y = 5$

22. \_\_\_\_\_

- A. (-3, 4)    B.  $(\frac{14}{5}, \frac{3}{5})$     C. (-3, 2)    D. (-2, -6)

23. \_\_\_\_\_

23.  $-4y = -3x - 4$  and  $x + 3y = -10$

24. \_\_\_\_\_

- A. (-4, -2)    B. (-8, 6)    C. (-2, 7)    D.  $(\frac{14}{3}, \frac{34}{3})$

24.  $4x + 7y = 7$  and  $3x + 4y = 5$

- A.  $(-\frac{2}{3}, \frac{4}{3})$     B.  $(-\frac{23}{5}, \frac{12}{5})$     C.  $(\frac{21}{15}, \frac{1}{5})$     D.  $(\frac{181}{111}, \frac{1}{37})$

Points(28) \_\_\_\_\_

Perform the indicated matrix operations.

25.  $\begin{bmatrix} 3 & 5 & -2 \\ 5 & -4 & 6 \end{bmatrix} + \begin{bmatrix} 5 & -3 & 7 \\ -7 & 3 & 1 \end{bmatrix}$

A.  $\begin{bmatrix} 8 & 2 & 5 \\ -2 & -1 & 7 \end{bmatrix}$  B.  $\begin{bmatrix} 8 & 2 & 5 \\ -2 & 1 & 7 \end{bmatrix}$  C.  $\begin{bmatrix} 8 & 2 & 5 \\ 2 & -1 & 7 \end{bmatrix}$  D.  $\begin{bmatrix} 8 & 2 & -5 \\ -2 & -1 & 7 \end{bmatrix}$

26.  $\begin{bmatrix} -1 & 5 & -3 \\ 3 & -5 & 6 \end{bmatrix} - \begin{bmatrix} 5 & -4 & -1 \\ 6 & -6 & 3 \end{bmatrix}$

A.  $\begin{bmatrix} -6 & 9 & 2 \\ -3 & 1 & 3 \end{bmatrix}$  B.  $\begin{bmatrix} -6 & 9 & -2 \\ -3 & -11 & 3 \end{bmatrix}$  C.  $\begin{bmatrix} -6 & 9 & -2 \\ -3 & 1 & 3 \end{bmatrix}$  D.  $\begin{bmatrix} -6 & 9 & -2 \\ 3 & 1 & 3 \end{bmatrix}$

27.  $4 \begin{bmatrix} -2 & 5 & 7 \\ 3 & -4 & 6 \end{bmatrix}$

A.  $\begin{bmatrix} 2 & 9 & 11 \\ 7 & 0 & 10 \end{bmatrix}$  B.  $\begin{bmatrix} -8 & 20 & 24 \\ 12 & -16 & 24 \end{bmatrix}$   
C.  $\begin{bmatrix} -8 & 20 & 28 \\ 12 & -16 & 24 \end{bmatrix}$  D.  $\begin{bmatrix} -8 & 20 & 28 \\ 12 & 16 & 24 \end{bmatrix}$

25. \_\_\_\_\_

26. \_\_\_\_\_

27. \_\_\_\_\_

Points(12) \_\_\_\_\_