

Name: \_\_\_\_\_

Period: \_\_\_\_\_

Score:

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**HW 8-4: Solve Systems by Substitution**

Solve each system of equations by substitution.

Examples:

A)  $y = x + 4$   
 $y = 2$

B)  $y = x - 6$   
 $y = 3x$

C)  $y = 2x + 1$   
 $3x + 4y = 26$

D)  $2x + 5y = 44$   
 $y = 6x - 4$

**Solve each system of equations by substitution.**

1.  $y = x + 7$   
 $y = 4$

2.  $y = x + 32$   
 $y = 5x$

3.  $y = -x - 9$   
 $y = -4x$

4.  $y = 2x + 5$   
 $x + 3y = 1$

5.  $y = x + 5$   
 $y = 6$

6.  $y = x + 12$   
 $y = -18$

7.  $y = x - 10$   
 $y = -12$

8.  $y = x + 15$   
 $y = 2x$

9.  $y = 2x - 3$   
 $x + y = 18$

10.  $y = \frac{1}{4}x$   
 $x + 4y = 8$

11.  $y = x + 12$   
 $4x + 2y = 27$

12.  $10x + 3y = 19$   
 $y = 2x + 5$

$$13. \quad \begin{aligned} y &= 4x + 45 \\ x &= 4y \end{aligned}$$

$$14. \quad \begin{aligned} y &= -2x \\ x &= 0 \end{aligned}$$

$$15. \quad \begin{aligned} x + y &= -3 \\ y &= x + 3 \end{aligned}$$

$$16. \quad \begin{aligned} y &= x + 4 \\ y &= 0 \end{aligned}$$

$$17. \quad \begin{aligned} x - y &= 6 \\ y &= -1 \end{aligned}$$

$$18. \quad \begin{aligned} y &= -2 \\ 4x - 3y &= 18 \end{aligned}$$

$$19. \quad \begin{aligned} 6x - 4y &= -36 \\ y &= -3x \end{aligned}$$

$$20. \quad \begin{aligned} 2x - 3y &= -1 \\ x &= y - 1 \end{aligned}$$

$$21. \quad \begin{aligned} -3x + 3y &= 4 \\ x &= y - 3 \end{aligned}$$

$$22. \quad \begin{aligned} x &= -5 \\ 3x - 4y &= 17 \end{aligned}$$

$$23. \quad \begin{aligned} 5x - 4y &= -36 \\ x &= y \end{aligned}$$

$$24. \quad \begin{aligned} 4x + 3y &= -5 \\ x &= y - 3 \end{aligned}$$