Substitution Independent Practice

Solve the following systems using the substitution method.

1. $2x + 8y = 12$
   $x - 2y = 0$

2. $x + y = 7$
   $2x + y = 5$

3. $x - 4y = 1$
   $2x - 8y = 2$

4. $2y + x = 2$
   $2x + 3y = 6$

5. $2x + y = -16$
   $x - 2y = -28$

6. $4y = 8$
   $2x + 5y = 11$

7. $x + y = 2$
   $-2x + 4y = -19$

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

9. $2x + y = 4$
   $2y = -4x + 8$

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

11. $y = 3x$
    $3x + 3y = 4$

12. $x + y = 6$
    $2y = -2x + 2$

Solving Systems by Substitution **Answer Key**

Substitution Independent Practice

Solve the following systems using the substitution method.

1. $2x + 8y = 12$
   $x - 2y = 0$ $(2, 1)$

2. $x + y = 7$
   $2x + y = 5$ $(-2, 9)$

3. $x - 4y = 1$
   $2x - 8y = 2$ *infinite solutions*

4. $2y + x = 2$
   $2x + 3y = 6$ $(6, -2)$

5. $2x + y = -16$
   $x - 2y = -28$ $(-12, 8)$

6. $4y = 8$
   $2x + 5y = 11$ $(\frac{1}{2}, 2)$

7. $x + y = 2$
   $-2x + 4y = -19$ $(4.5, -2.5)$

8. $x + 2y = 4$
   $3x - 4y = -3$ $(1, 1.5)$

9. $2x + y = 4$
   $2y = -4x + 8$ *infinite solutions*

10. $x + y = 2$
    $x + y = 5$ *no solution*

11. $y = 3x$
    $3x + 3y = 4$ $(\frac{1}{3}, 1)$

12. $x + y = 6$
    $2y = -2x + 2$ *no solution*