Solving Quadratic Equations Involving Functions:

1. $f(x) = 10 - 3x$
   $g(x) = x^2$

   Solve: $f(x) = g(x)$

2. $f(x) = 10 - 3x$
   $g(x) = x^2$

   Solve: $f(2x) = g(2x)$

3. $f(x) = 10 - 3x$
   $g(x) = x^2$

   Solve: $f(3x) = g(3x)$

4. $f(x) = 10 - 3x$
   $g(x) = x^2 + 10$

   Solve: $f(3x) = g(3x)$

5. $f(x) = 10 - 3x$
   $g(x) = x^2 + 10$

   Solve: $f(x) = g(x)$

6. $f(x) = 3x + 10$
   $g(x) = x^2 + 10$

   Solve: $f(x) = g(x)$

7. $f(x) = 3x + 10$
   $g(x) = x^2$

   Solve: $f(x) = g(x)$

8. $f(x) = 3x + 10$
   $g(x) = x^2$

   Solve: $fg(x) = f(x)$

9. $f(x) = 3x + 10$
   $g(x) = 2x^2$

   Solve: $fg(x) = f(x)$

10. $f(x) = 3x + 10$
    $g(x) = 2x^2$

    Solve: $gf(x) = g(x)$

11. $f(x) = 6x + 10$
    $g(x) = x^2$

    Solve: $gf(x) = fg(x)$

12. $f(x) = 6x + 10$
    $g(x) = x^2$
    $h(x) = 2x - 3$

    Solve: $gh(x) = gf(x)$

Solving Quadratic Equations Involving Functions: SOLUTIONS

1. $x = -5$ or $x = 2$

2. $x = -\frac{5}{2}, x = 1$

3. $x = -\frac{5}{3}, x = \frac{1}{3}$

4. $x = -1, x = 0$

5. $x = -3, x = 0$

6. $x = 0, x = 3$

7. $x = -5$ or $x = 2$

8. $x = 0, x = 1$

9. $x = 0, x = \frac{1}{2}$

10. $x = -5, x = -\frac{5}{2}$

11. $x = -3, x = -1$

12. $x = -\frac{13}{4}, x = -\frac{7}{8}$