

Algebra 9-6 Analyzing Solutions to Quadratic Equations

In 1-4 an equation is given.

- a.) Calculate the value of the discriminant.
b.) Tell how many real solutions the equation has.

1. $6x^2 - 4x + 1 = 0$ Discriminant = _____ Number of solutions = _____

2. $4w^2 + 4w + 1 = 0$ Discriminant = _____ Number of solutions = _____

3. $-2y^2 - 6y + 5 = 0$ Discriminant = _____ Number of solutions = _____

4. $3x^2 = 6x + 9$ Discriminant = _____ Number of solutions = _____

In 5-8, solve the equation. Round answers to the nearest tenth.

5. $x^2 + 6x + 9 = 0$ $x =$ _____

6. $5x^2 - 6x = 10$ $x =$ _____

7. $2x^2 + x + 3 = 0$ $x =$ _____

8. $12 = 4x + x^2$ $x =$ _____

9. For what value of t does $x^2 + 10x + t = 0$ have just one solution? _____

10. For what value of t does $x^2 + 8x - t = 0$ have just one solution? _____