

Describe the number and type of roots using the Discriminant.

1. $x^2 - x - 12 = 0$

2. $x^2 + 3x - 3 = 0$

3. $x^2 - 2x + 5 = 0$

4. $-12x^2 + 5x + 2 = 0$

5. $9x^2 - 6x - 4 = -5$

6. $4x^2 + 7 = 9x$

Solve the following using the Quadratic Formula. Write answers in set notation.

7. $x^2 - 30x - 64 = 0$

8. $x^2 - 4x + 7 = 0$

9. $4x^2 + 81 = 36x$

10. $2x^2 - 12x + 7 = 5$

11. $9x^2 - 6x - 4 = -5$

12. $2x - 5 = -x^2$