

9-3

Practice

Form G

Solving Quadratic Equations

Solve each equation by graphing the related function. If the equation has no real-number solution, write *no solution*.

1. $x^2 - 16 = 0$

2. $x^2 + 12 = 0$

3. $2x^2 - 18 = 0$

4. $7x^2 = 0$

5. $\frac{1}{2}x^2 - 2 = 0$

6. $x^2 + 49 = 0$

7. $x^2 - 15 = -15$

8. $4x^2 - 36 = 0$

9. $x^2 + 36 = 0$

Solve each equation by finding square roots. If the equation has no real-number solution, write *no solution*.

10. $t^2 = 25$

11. $k^2 = 484$

12. $z^2 - 256 = 0$

13. $d^2 - 14 = -50$

14. $9y^2 - 16 = 0$

15. $2g^2 - 32 = -32$

16. $4a^2 = 36$

17. $7x^2 + 28 = 0$

18. $6n^2 - 54 = 0$

19. $81 - c^2 = 0$

20. $16x^2 - 49 = 0$

21. $64 + j^2 = 0$

Model each problem with a quadratic equation. Then solve. If necessary, round to the nearest tenth.

22. Find the side length of a square with an area of 196 ft².

23. Find the radius of a circle with an area of 100 in².

24. Find the side length of a square with an area of 50 cm².