

Calculate the roots of each quadratic equation.

1. $x^2 - 9 = 0$

$$(x+3)(x-3) = 0$$

$$x+3 = 0 \text{ or } x-3 = 0$$

$$\boxed{x = -3}$$

$$\boxed{x = 3}$$

2. $x^2 - 64 = 0$

3. $25n^2 - 36 = 0$

4. $x^2 + 8x + 16 = 0$

5. $9x^2 - 30x + 25 = 0$

Calculate the zeros of each function.

6. $f(x) = x^2 - 225$

7. $f(x) = 4x^2 - 9$

8. $f(x) = 16x^2 - 24x + 9$

9. $f(x) = x^2 - 16x + 64$

$$(x-8)(x-8) = 0$$

$$x-8 = 0$$

$$\boxed{x = 8}$$

10. $f(x) = 6x^2 + 24x + 24$