



Class 10 Mathematics | Quadratic Equations

MCQ WORKSHEET • 15 questions • Choose one correct option • Suggested time: 25 minutes

1. Which equation is quadratic?

- A. $x^3-1=0$ B. $3x+1=0$
C. $2x^2-3x+1=0$ D. $1/x=2$

2. Roots of $x^2-9=0$ are:

- A. 0 and 9 B. 3 and 3 C. 3 and -3 D. 9 and -9

3. The discriminant of $x^2-6x+8=0$ is:

- A. 4 B. 8 C. 68 D. 36

4. An equation with discriminant -7 has:

- A. one real root
B. no real roots
C. two distinct real roots
D. two equal real roots

5. The roots of $x^2-7x+12=0$ are:

- A. -3 and -4 B. 2 and 6 C. 1 and 12 D. 3 and 4

6. For $x^2-4x+k=0$ to have equal roots, k is:

- A. -4 B. 2 C. 8 D. 4

7. The roots of $2x^2-5x+2=0$ are:

- A. $5/2$ and 1 B. 1 and 2
C. 2 and $1/2$ D. -2 and $-1/2$

8. A positive number exceeds its reciprocal by $3/2$. The number is:

- A. $3/2$ B. 3 C. $1/2$ D. 2

9. A rectangle has width x and length x+3; area 40. Its width is:

- A. 5 B. 8 C. 4 D. 10

10. Which quadratic has roots 1 and -5?

- A. $x^2+6x+5=0$ B. $x^2+4x-5=0$
C. $x^2-6x+5=0$ D. $x^2-4x-5=0$

11. For $3x^2+2x+1=0$, the discriminant is:

- A. -8 B. 16 C. 8 D. -4

12. If 2 is a root of $x^2+kx-6=0$, k is:

- A. -2 B. 1 C. -1 D. 2

13. Two consecutive positive integers have product 56. The smaller is:

- A. 7 B. 6 C. 9 D. 8

14. The equation $(x+1)^2=x^2+5$ reduces to:

- A. a linear equation B. an identity
C. a quadratic equation D. a cubic equation

15. For $kx^2+3x+2=0$ to be quadratic, k must satisfy:

- A. $k>0$ only B. $k\neq 0$ C. $k=0$ D. $k=1$ only

ANSWER KEY — check after completing all 15 questions

1.C 2.C 3.A 4.B 5.D 6.D 7.C 8.D 9.A 10.B 11.A 12.B 13.A 14.A 15.B