

Chapter 2 – Quadratic Equations

MM 25

Class X

Time 1h

1 Mark Each

1. Find the roots of quadratic equation $3x^2 - 2\sqrt{6}x + 2 = 0$ by factorization.
2. What is the nature of roots of the quadratic equation $4x^2 - 12x - 9 = 0$?
3. Quadratic formula is also known as _____

2 Marks Each

4. If one root of the quadratic equation $2x^2 + kx - 6 = 0$ is 2, find the value of k. Also find the other root.
5. Solve for x $\frac{1}{x+a+b} = \frac{1}{x} + \frac{1}{a} + \frac{1}{b}$ [a, b, x \neq 0]

3 Marks Each

6. Solve for x using quadratic formula $12abx^2 - (9a^2 - 8b^2)x - 6ab = 0$
7. Obtain the condition that one root of the quadratic equation $ax^2 + bx + c = 0$ is double the other.

6 Marks Each

8. The difference of squares of two numbers is 112. The square of smaller number is 9 times is the larger no. Find the two numbers.
9. A plane left 30 minutes late than its scheduled time and in order to reach the destination 1500 km away in time, it had to increase the speed by 250 km/h from the usual speed. Find its usual speed.

