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## CBSE Class 10- Mathematics: Chapter – 4 Quadratic Equations Part 5

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### Question 4:

Find the nature of root

$$2x^2 + 3x - 4 = 0$$

**Answer:**

Root are real and unequal

### Question 5:

Find the value , so that quadratic equation  $3 \times 2 - kx + 38 = 0$  has equal root

**Answer:**

$$5 \pm 18$$

### Question 6:

Determine whether given value of , is a solution or not

$$(1) \ x^2 - 3x - 1 = 0 : x = 1$$

**Answer:**

Not a solution

## Level 2 (02 Marks)

### Question 1:

Solve by quadratic equation  $16 \times 2 - 24x - 1 = 0$  by using quadratic formula

**Answer:**

### Question 2:

Determine the value of for which the quadratic equation  $2x^2 + 3x + k = 0$  have both roots real.

**Answer:**

$$k \leq \frac{9}{8} \text{ or } k = \frac{3 + \sqrt{10}}{4}$$

$$= \frac{3 - \sqrt{10}}{4}$$

**Question 3:**

Find the roots of equation  $2x^2 + x - 6 = 0$

**Answer:**

$$x = 2, x = \frac{3}{2}$$

**Question 4:**

Find the roots of equation  $x - \frac{1}{x} = 3x \neq 0$

**Answer:**

$$x = \frac{3}{2}$$

**Level 3 (03 Marks)****Question 1:**

The sum of the squares of two consecutive positive integers is 265. Find the integers.

**Answer:**

Number are 11, 12

**Question 2:**

Divide 39 into two parts such that their product is 324

**Answer:**

$$27, 12$$

**Question 3:**

The sum of number and its reciprocals is. Find the number.

**Answer:**

$$4\frac{1}{4}$$

**Question 4:**

The length of rectangle is 5cm more than its breadth if its area is 150 Sq. cm

**Answer:**

$$10\text{cm}, 15\text{cm}$$

**Question 5:**

The altitude of a right triangle is 7cm less than its base. If the hypotenuse is 13cm. Find the other two sides

**Answer:**

12cm and 5cm