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

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 ± 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 $2x2 + 3x + k = 0$ have both roots real.

Answer:

$k \leqslant \frac{9}{8} x = \frac{3 + \sqrt{10}}{4}$

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

Question 3:

Find the roots of equation $2x2 + x - 6 = 0$

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:

$10cm, 15cm$

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 and5cm