UNIT-8: QUADRATIC EQUATIONS

1.1 Solve the equation: $X^2 + 2X - 8 = 0$

1.2 Factorise: $X^2 + 2X = 8$

1.3 Find the roots of the equation $X^2 = 8 - 2X$ using formula.

1.4 Find the roots of the equation $X^2 + 2X - 8 = 0$

2.1 Find the value of the discriminant in $X^2 - 7X + 6 = 0$.

2.2 Find the value of $b^2 - 4ac$ in $X^2 - 7X + 6 = 0$.

2.3 Find the value of Δ in $X^2 - 7X = -6$.

2.4 Check whether the value of Δ is positive in the equation $X^2 = 7X - 6$.

3.1 Find the roots of the equation $X^2 - 7X + 12 = 0$.

3.2 If one of the roots of the equation $X^2 - 7X + 12 = 0$ is 3, then find the other root.

3.3 If roots of the equation $X^2 - 7X + 12 = 0$ are $(3, K)$, then find the value of K.

3.4 Find the different roots of the equation $X^2 - 7X + 12 = 0$

3.5 If the roots of the equation $X^2 - 7X + 12 = 0$ are $(K, 3)$ then which value of K is the root of the equation.

4.1 Solve the equation $2Y^2 + 6Y = 3$.

4.2 Find the roots of the equation $2Y^2 = -6Y + 3$ using formula.

4.3 Find the roots of the equation $6Y - 3 = -2Y^2$

4.4 Factorise $6Y = 3 - 2Y^2$.

5.1 Discuss the nature of the roots of the equation $4X^2 - 4X + 1 = 0$.

5.2 Find the nature of the roots of the equation $4X^2 - 4X + 1 = 0$.

5.3 Discuss the nature of the roots of the equation by finding the discriminant of the equation $4X^2 + 1 = 4X$

6.1 Find the value of 'K' if the roots of the equation $KX^2 + 6X + 1 = 0$ are equal.

6.2 Which value of ' K ', makes the roots of the equation $KX^2 + 6X + 1 = 0$ equal.

6.3 If $b^2 - 4ac = 0$ in the equation $KX^2 = -6X - 1$, then find the value of K

7.1 Check whether $(x + 1)^2 = 2 (x - 3)$ is a quadratic equation.

7.2 Test whether $x^2 + 2x + 1 = 2 (x - 3)$ is a quadratic equation.

7.3 $X^2 - 5 = 0$ is this a quadratic equation ?

8.1 Check whether $x - (1 / x) = 0$ is a quadratic equation.

8.2 Check whether $x^2 - 1 = 0$ is a quadratic equation.

9.1 $x^2 = y^2$ is this a quadratic equation?

9.2 $x^2 - y^2 = 0$ is this a quadratic equation? Justify your answer.

10.1 Check whether $x^2 - 2x = (- 2) (3 - x)$ is a quadratic equation

10.2 $x^2 - 2x = - 6 + 2x$ is this a quadratic equation?

10.3 Check whether $x^2 - 4x + 6 = 0$ is a quadratic equation.

11.1 Check whether $x^2 = y^2$ is a quadratic equation.

11.2 Check whether $x^2 - y^2 = 0$ is a quadratic equation.

12.1 Check whether $(x + 2)^3 = 2x (x^2 - 1)$ is a quadratic equation.

12.2 Check whether $x^3 - 6x^2 - 14x - 8 = 0$ is a quadratic equation.

13.1 Check whether $x + (1 / x) = 5$ is a quadratic equation.

13.2 Test whether $x^2 + 1 = 5x$ is a quadratic equation.

13.3 Check whether $x^2 - 5x + 1 = 0$ is a quadratic equation.

14.1 Write the descriminent of the quadratic equation $ax^2 + bx + c = 0$.

14.2 Write the descriminent of the quadratic equation.

14.3 Write the formula to find the nature of the quadratic equation.