

SUBJECT - MATHEMATICS

CHAPTER - Quadratic Equation

WORKSHEET NUMBER - 5

1) Represent the following situation in the form of quadratic equation and hence solve it :-

The length of a rectangular field is 3m more than its breadth and its diagonal is 15 m.

2) Find the roots of quadratic equation :-

$$\frac{x}{3} + \frac{3}{x} = 1\frac{1}{4}$$

3) For what value of 'k', $\frac{2}{3}$ will be a root of the quadratic equation $7x^2 + kx - 3 = 0$

4) Evaluate : $\frac{1}{a+b+x} = \frac{1}{a} + \frac{1}{b} + \frac{1}{x}$.

5) Evaluate : $\frac{x}{x+1} + \frac{x+1}{x} = 2\frac{1}{12}$, $x \neq 0, -1$.

6) Convert the quadratic equation $2x^2 - 6x + 1 = 0$ in perfect square form and hence find the roots.

7) Find the nature of roots of the quadratic equation $2x^2 - 3x + 2 = 0$.

8) Find the quadratic equation whose roots are 2 and $-\frac{2}{3}$.