

Class – 10th

Chapter-3

Subject Maths

Worksheet-09

Polynomials

1. Had Ajita scored 10 more marks in her mathematics test out of 30 marks, 9 times these marks would have been the square of her actual marks. How many marks did she get in the test?
2. A train travels at a certain average speed for a distance of 63 km and then travels a distance of 72 km at an average speed of 6 km/h more than its original speed. If it takes 3 hours to complete the total journey, what is its original average speed?
3. A train, travelling at a uniform speed for 360 km, would have taken 48 minutes less to travel the same distance if its speed were 5 km/h more. Find the original speed of the train.
4. In the centre of a rectangular lawn of dimensions 50 m × 40 m, a rectangular pond has to be constructed so that the area of the grass surrounding the pond would be 1184 m² [see Fig. 4.1]. Find the length and breadth of the pond.

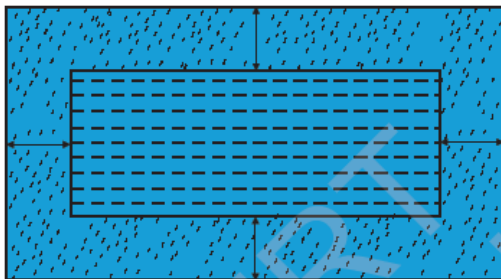


Fig. 4.1

5. Find the roots of the quadratic equations by using the quadratic formula in each of the following:
(i) $2x^2 - 3x - 5 = 0$ (ii) $5x^2 + 13x + 8 = 0$