

Quadratic Equation Worksheet 2

Represent the following situations in the form of quadratic equations.

1. Had Kamal scored 10 more marks in his mathematics test out of 30 marks, 9 times, these marks would have been the square of his actual marks.
2. A train travels at a certain average speed of 63 km and then travels a distance of 72 km at an average speed of 6 km/h, more than its original speed. It takes 3 hours to complete the total journey, and the average speed is to be calculated here.
3. The area of a rectangular plot is 528 m^2 . The length of the plot (in metres) is one more than twice its breadth. We need to find the length and breadth of the plot.
4. The product of two consecutive positive integers is 306. We need to find the integers.
5. Rohan's mother is 26 years older than him. The product of their ages (in years) 3 years from now will be 360. We want to find Rohan's present age.
6. A train travels a distance of 480 km at a uniform speed. If the speed had been 8 km/h less, it would have taken 3 hours more to cover the same distance. We need to find the speed of the train.
7. The length and breadth of a rectangle are given as $(2x + 1)$ units and $(3x - 2)$ units. We need to find the dimensions of this rectangle.
8. Amar takes 6 days less than the time taken by Bittu to finish a piece of work. Both Amar and Bittu together can complete the work in 4 days, and we need to find the time taken by Bittu to finish the work.
9. The product of two consecutive odd positive integers is 323. The sum of these two integers is to be calculated.
10. The numerator of a fraction is 3 less than its denominator. If two are added to both the numerator and its denominator, the sum of the new and original fractions is $\frac{29}{20}$. We need to find the original fraction.