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## QUADRATIC EQUATIONS ASSIGNMENT 16

1. In a flight of 3000 km, an aircraft was slowed down due to bad weather. Its average speed for the trip was reduced by 100 km/h and consequently time of flight increased by one hour. Find the original duration of the flight. (Ans. 5 hours)
2. A shopkeeper buys a number of books for Rs. 800. If he had bought four more books for the same amount, each book would have cost him Rs. 10 less. How many books did he buy? (Ans. 16)
3. A passenger train takes 2 hours less for a journey of 300 km if its speed is increased by 5 km/h from its usual speed. Find the usual speed of the train. (Ans. 25 km/h)
4. A speed of a boat in still water is 11 km/h. It can go 12 km upstream and return downstream to the original point in 2 hours 45 minutes. Find the speed of the stream. (Ans. 5 km/h)
5. By increasing the list price of a book by Rs. 10 a person can buy 10 less books for Rs. 1200. Find the original list price of the book. (Ans. 30)
6. 300 apples are distributed equally among a certain number of students. Had there been 10 more students, each would have received one apple less. Find the number of students. (Ans. 50)
7. An aeroplane left 30 minutes later than its scheduled time and in order to reach its destination 1500 km away in time, it has to increase its speed by 250 km/h from its usual speed. Determine its usual speed. (750 km/h)
8. A person on tour has Rs. 360 for his daily expenses. If he exceeds his tour programme by 4 days, he must cut down his daily expenses by Rs. 3 per day. Find the number of days of his tour programme. (Ans. 20)
9. A person goes at a distance of 30 km on his bicycle. The number of hours taken by him is one less than his average speed in km/h. Find the time taken by him to complete the journey. (Ans. 5 hours)
10. The difference of mother's age and her daughter's age is 21 years and the twelfth part of the product of their ages is less than the mother's age by 18 years. Find their ages. (Ans. 3 years, 24 years)