CBSEASSISTANCE.COM

1. Find the value of k for which the equation $2kx^2 - 40x + 25 = 0$ has equal roots.
2. If -2 is a root of the quadratic equation $x^2 - px - 5 = 0$ and the quadratic equation $x^2 + px + k = 0$ has equal roots, find the value of k.
3. Solve for x: $\frac{x}{x+1} + \frac{x+1}{x} = \frac{34}{15}, x \neq 0, x \neq -1$
4. Rs. 6500 were divided equally among a certain number of persons. Had there been 15 more persons, each would have got Rs. 30 less. Find the original number of persons.
5. The area of a right triangle is 600 cm^2. If the base of the triangle exceeds the altitude by 10 cm, find the dimensions of the triangle.
6. For what value of k, the roots of the quadratic equation $3x^2 + 2x + k = 0$ are real and equal?
7. Find the roots of the given equation: $\frac{x-1}{2x+1} + \frac{2x+1}{x-1} = \frac{5}{2}; \ x \neq 1, \frac{1}{2}$
8. A natural number when increased by 12, becomes equal to 160 times the reciprocal of given number. Find the number.
9. In a flight of 600 km, an aircraft was slowed down due to bad weather. Its average speed for the trip was reduced to 200 km/h and the time increased by 30 minutes. Find the duration of the flight.
10. Find two consecutive odd positive integers, sum of whose squares is 290.