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1. Solve for x: $ax^2 + (4a^2 - 3b)x - 12ab = 0$
2. Solve the quadratic equation $9x^2 - 15x + 6 = 0$ by the method of completing the square.
3. Solve for x: $\sqrt{5}x^2 - 3\sqrt{6}x - \sqrt{20} = 0$
4. By a reduction of Re. 1 per kg in the price of sugar, Mohan can buy one kg sugar more for Rs. 56. Find the original price of sugar per kg.
5. A motor boat whose speed is 18 km/h in still water takes 1 hour more to go 24 km upstream than to return downstream to the same spot. Find the speed of the stream.
6. Find the roots of the quadratic equation: $\sqrt{7}y^2 - 6y - 13\sqrt{7} = 0$
7. Solve for x: $12abx^2 - (9a^2 + 8b^2)x + 6ab = 0$
8. Solve for x: $9x^2 - 9(a + b)x + [2a^2 + 5ab + 2b^2] = 0$
9. The time taken by Ram to cover 150 km in one direction was 150 minutes more than the time in the return journey. If he returned at a speed of 10 km/h more than the speed of going, what was the speed per hour in each direction?
10. An aeroplane left 40 minutes late due to heavy rains and in order to reach its destination, 1600 km away in time, it had to increase its speed by 400 km/h from its original speed. Find the original speed of the plane.