

**Important Questions of MP Class 10 Maths**

1. A Ladder 20 m long reaches a window of a building 15 m. above the ground. Find distance of the foot of the ladder from the building.
2. Write the statement of converse of fundamental proportionality theorem
3. Which sides represent the right angled triangle?  
(i) 6 cm, 8 cm, 10 cm (ii) 5 cm, 8 cm, 11 cm.
4. Find the median :  
38, 70, 48, 34, 42, 55, 63, 46, 54, 44
5. Solve the following system of equation.  
$$\begin{aligned} 2x + 7y &= 11 \\ -3x + 5y &= -1 \end{aligned}$$
6. The cost of 2 chairs and 3 tables is Rs. 800 and the cost of 4 chairs and 3 tables is Rs. 1000 find the cost of a 3 chairs and 3 tables.
7. Find two consecutive natural numbers whose squares have the sum 265.
8. The volume of a cubical box is 1331 cu. then find its total surface area
9. If  $\frac{x}{b+c} = \frac{y}{c+a} = \frac{z}{a+b}$ , then prove that  $(b-c)x + (c-a)y + (a-b)z = 0$
10. Construct a circumcircle of triangle DABC in which AB = 5 cm, BC = 7 cm. and  $\angle DABC = 60^\circ$
11. A leap year is taken at random, find the probability of 53 Sunday in this leap Year.
12. A bag contains 3150 coins. There are 1 rupee coin, 2 rupee coin and 5 Rupee coin in a bag. The ratio of each coin is 3: 2: 5 respectively then calculate the number of each coin.
13. Three solid balls whose radii are 3, 4 and 5 respectively are melted and converted into a sphere find the radius and volume of the sphere.

14. Solve equation  $\sqrt{25 - x^2} = x - 1$
15. A watch is given either in cash payment of Rs. 960 or in instalment payment scheme by partial payment of Rs. 480 and two equal instalment of Rs. 245 find rate of interest of the instalment plan.
16. Find amount and Compound interest of Rs. 2000 after 2 years. at the rate of 10% per annum.
17. Two isosceles triangle have equal vertical angles and their areas in the ratio 9 : 16 Find the ratio of their corresponding height?
18. Five years ago, age of Atindra was thrice the age of Gyana. After 10 years Atindra's age will be twice the age of Gyana. Find the present age of Atindra and Gyana?
19. Simplify  $\frac{x + 4}{x + 2} - \frac{x - 1}{x - 2}$
20. If 1 is a root of the quadratic equation  $2x^2 + Px + 4 = 0$ , then find the other root and also find the value of P.



