

TN Board Class 9 Maths

Important Questions

1. Points A and B are 70 km apart on a highway. A car starts from A and another car starts from B simultaneously. If they travel in the same direction, they meet in 7 hours, but if they travel towards each other, they meet in one hour. Find the speed of the two cars.
2. It takes 24 hours to fill a swimming pool using two pipes. If the pipe of larger diameter is used for 8 hours and the pipe of the smaller diameter is used for 18 hours. Only half of the pool is filled. How long would each pipe take to fill the swimming pool.
3. Five years ago, a man was seven times as old as his son, while five years hence, the man will be four times as old as his son. Find their present age.
4. The points A (, -5 4), B(, - - 1 2) and C(, 5 2) are the vertices of an isosceles right angled triangle where the right angle is at B. Find the coordinates of D so that ABCD is a square.
5. Prove that the diagonals of the parallelogram bisect each other. [Hint: Take scale on both axes as 1cm=a units]
6. A line segment AB is increased along its length by 25% by producing it to C on the side of B. If A and B have the coordinates (-2 -3) and (2 1) respectively, then find the coordinates of C.
7. Verify $\cos 3A = 4 \cos^3 A - 3 \cos A$, when $A = 30^\circ$
8. Find the angle made by a ladder of length 5m with the ground, if one of its end is 4m away from the wall and the other end is on the wall.
9. Find the area of an equilateral triangle whose perimeter is 180 cm.
10. A triangle and a parallelogram have the same area. The sides of the triangle are 48 cm, 20 cm and 52 cm. The base of the parallelogram is 20 cm. Find (i) the area of triangle using Heron's formula. (ii) the height of the parallelogram.
11. A land is in the shape of rhombus. The perimeter of the land is 160 m and one of the diagonal is 48 m. Find the area of the land.
12. The parallel sides of a trapezium are 15 m and 10 m long and its non-parallel sides are 8

m and 7 m long. Find the area of the trapezium.

13. Find the TSA and LSA of the cube whose side is (i) 8 m (ii) 21 cm (iii) 7.5 cm
14. The dimensions of a match box are $6\text{ cm} \times 3.5\text{ cm} \times 2.5\text{ cm}$. Find the volume of a packet containing 12 such match boxes.
15. External dimensions of a closed wooden cuboidal box are $30\text{ cm} \times 25\text{ cm} \times 20\text{ cm}$. If the thickness of the wood is 2 cm all around, find the volume of the wood contained in the cuboidal box formed.
16. What is the probability of throwing an even number with a single standard dice of six faces?
17. In a football match, a goalkeeper of a team can stop the goal, 32 times out of 40 attempts tried by a team. Find the probability that the opponent team can convert the attempt into a goal.
18. If a probability of a player winning a particular tennis match is 0.72. What is the probability of the player losing the match?
19. A company manufactures 10000 Laptops in 6 months. In that 25 of them are found to be defective. When you choose one Laptop from the manufactured, what is the probability that selected Laptop is a good one.
20. A manufacturer tested 7000 LED lights at random and found that 25 of them were defective. If a LED light is selected at random, what is the probability that the selected LED light is a defective one.