

Class IX**MATHEMATICS****MARKS: 15****Chapter: Surface areas and volumes Duration: 45 minutes****Q.1. Solve (1 mark each)**

1. The lateral surface area of a cube is 256 m^2 . Find its volume.
2. The length, breadth and height of a cuboid are 5 m, 4 m and 3 m respectively. Find its total surface area.
3. A cube has each edge 10 cm. Find its total surface area.

Q.2. Solve (2 marks each)

1. A matchbox measures 4 cm x 2.5 cm x 1.5 cm. What will be the volume of a packet containing 12 such boxes?
2. A cuboidal vessel is 10 m long and 8 m wide. How high must it be made to hold 380 cubic metres of a liquid?

Q.3. Solve (3 marks)

1. The paint in a certain container is sufficient to paint an area equal to 9.375 m^2 . How many bricks of dimensions 22.5 cm x 10 cm x 7.5 cm can be painted out of this container?

OR

The floor of a rectangular hall has a perimeter of 250 m. If the cost of painting the four walls at the rate of Rs 10 per m^2 is Rs 15000, find the height of the hall. [Hint: Area of the four walls = Lateral surface area]

Q.4. Solve (5 marks)

1. Shanti sweets stall was placing an order for making cardboard boxes for packing their sweets. Two sizes of boxes were required. The bigger of dimensions 25 cm x 20 cm x 5 cm and the smaller of dimensions 15 cm x 12 cm x 5 cm. For all the overlaps, 5% of the total surface area is required extra. If the cost of the cardboard is Rs 4 for 1000 cm^2 , find the cost of cardboard required for supplying 250 boxes of each kind.