Q1. Find the lateral surface area, total surface area and volume of the following :

a. A cube of edge 2.5 cm

Lateral surface area = _____

Total surface area = _____

Volume = _____

b. A cuboid having length 5.3 cm, breadth 4.5 cm and height 3 cm

Lateral surface area = _____

Total surface area = _____

Volume = _____

Q2. Choose the correct diagonal of a cube of side 3 cm each:

a. $2\sqrt{2}$ cm

b. $3\sqrt{2}$ cm

c. $2\sqrt{3}$ cm

d. $3\sqrt{3}$ cm

Answer: _____

Q3. Find the length of the longest rod that can be fitted into a cuboidal box of length 12 m, breadth 9 m and height 8 m.

Answer: _____

Q4. Ashu has to make an open cuboidal box 20 cm long, 5 cm wide and 6 cm deep using cardboard. If the cardboard costs ₹ 5 per sq cm, find the cost of the cardboard used in making the box.

Answer: _____

Q5. 200 boxes of sweets are to be packed equally into 2 cartons. If each box of sweet is 15 cm long, 8 cm wide and 3 cm deep, find the height of each carton if the base area of a carton is 3000 cm².

Answer: _____

Q6. A solid metallic rod having radius 14 cm and length 154 cm is melted to form a cube. Find the length of the resultant cube.

Answer: _____

Q7. The radii of two cylinders are in the ratio 1 : 5 and their heights are in the ratio 5 : 1. Find the ratio of their volumes.

Answer: _____

Q8. In a laboratory a beaker having radius 3 cm contains brine solution upto a height of 24 cm. The contents of the beaker are transferred to another empty beaker having radius 4 cm. Find the height upto which the solution will rise in the new beaker.

Answer: _____

Q9. Find the volume of iron used in making a hollow pipe 0.5 cm thick, 14 cm long having an outer diameter of 3 cm.

Answer: _____

Q10. Three cubes each of 5 cm edge are joined end to end. Find the total surface area and volume of the resulting cuboid.

Total surface area of the cuboid : _____

Volume of the cuboid : _____

Answers

1. a. 25 cm^2, 37.5 cm^2, 15.625 cm^3; b. 58.5 cm^2, 106.5 cm^2, 71.55 cm^3
2. (d)
3. 17 m
4. ₹ 2000
5. 12 cm
6. 308 cm
7. 1 : 5
8. 13.5 cm
9. 55 cm^3
10. 350 cm^2, 375 cm^3