Surface Areas and Volumes : Worksheet -9

1. The number of bricks each measuring 25 cm X 15 cm X 8 cm required to construct a wall of dimensions 10m X 0.4 m X 5 m when 10% of its volume is occupied by mortar is: _ _ _ _ _ _ _ _ _ _ _ _ [ ]

   a) 7000 b) 6000 c) 5000 d) 4000

2. The longest rod that can be placed on a room 12m X 9m X 8m is [ ]

   a) 17 m b) 12 m c) 9 m d) none

3. A cube of the side 4 cm is melted and smaller cubes of sides 2 cm each are formed. Number of cubes formed are [ ]

   a) 2 b) 4 c) 6 d) 8

4. The length of the longest rod that can be arranged in a cube of surface area 96 sq.m is _ _ _ _ _ _ _ _ _ _ _ _ _ . [ ]

   a) $2\sqrt{3}$ m b) $3\sqrt{3}$ m c) $4\sqrt{3}$ m d) $5\sqrt{3}$ m

5. If a cube has a diagonal of $7\sqrt{3}$ m then its volume is [ ]

   a) 343 m^3 b) 433 m^3 c) 412 m^3 d) 216 m^3

6. If each side of a cube is increased by three times then its volume is [ ]

   a) $3a^3$ b) $8a^3$ c) $27a^3$ d) $6a^3$

7. If two cubes each of edge 15 m are joined to form a single cuboid, then the surface area of the new cuboid is :_ _ _ _ _ _ _ _ _ _ _ _ _ [ ]

   a) 5760 m^3 b) 5670 m^3 c) 6057m^3 d) 2250 m^3

8. The area of the curved surface of a right circular cone of diameter 14 c is 550 cm^2. The height of the cone is: _ _ _ _ _ _ _ _ _ _ _ _ _ [ ]

   a) 25 cm b) 22 cm c) 23 cm d) 24 cm

9. If a solid right circular cylinder made of iron is heated to increase its radius and height by 1% each then the volume of the solid is increased by [ ]

a) 1.01 % b) 3.03 % c) 2.01 % d) 1.2 %

10. Two cones A and B have their base radii in the ratio of 4 : 3 and their heights in the ratio 3 : 4. The ratio of volumes of cone A to that of cone B is : [ ]

a) 4 : 3 b) 3 : 4 c) 2 : 3 d) 1 : 2

Third Apple