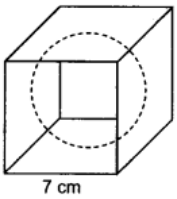
BCM SCHOOL, BASANT AVENUE, DUGRI ROAD, LUDHIANA
Class: X
SUBJECT: MATHEMATICS
Chapter: Surface Areas and Volumes

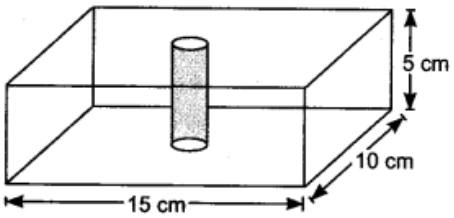
1. If the area of three adjacent faces of cuboid are X, Y and Z respectively, then the volume of cuboid is:
   (a) XYZ (b) 3XYZ (c) √XYZ (d) 3√XYZ
2. The volume (in cm^3) of the largest right circular cone that can be cut off from a cube of edge 4.2 cm is:
   (a) 9.7 (b) 72.6 (c) 58.2 (d) 19.4
3. **Assertion:** Savitri had to make a model of a cylindrical kaleidoscope for her science project. She wanted to use chart paper to make the curved surface of the kaleidoscope. 550cm^2 would be the area of chart paper required by her, if she wanted to make a kaleidoscope of length 25 cm with a 3.5 cm radius.

   Reason: Area of chart paper required = curved surface area of the kaleidoscope= 2πrh
   a) Both Assertion and Reason are correct and reason is correct explanation for the.
   b) Both Assertion and Reason are false but reason is not correct explanation for assertion.
   c) Assertion is correct but reason is false.
   d) Both Assertion and reason are false.

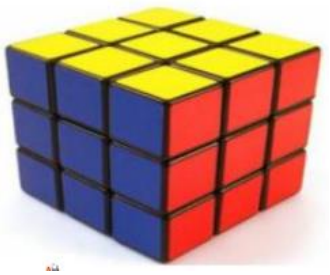
4. The largest possible sphere is carved out of a wooden solid cube of side 7 cm. Find the volume of the wood left.



5. A hemispherical bowl of internal diameter 36 cm contains liquid. This liquid is filled into 72 cylindrical bottles of diameter 6 cm. Find the height of the each bottle, if 10% liquid is wasted in this transfer.
6. In figure, from a cuboidal solid metallic block of dimensions 15 cm X 10 cm X 5 cm, a cylindrical hole of diameter 7 cm is drilled out. Find the surface area of the remaining block.



7. On a Sunday, your Parents took you to a fair. You could see lot of toys displayed, and you wanted them to buy a RUBIK's cube and strawberry ice-cream for you. Observe the figures and answer the questions.



   (a) What is the length of the diagonal if each edge measures 6cm?

   (b) What is the curved surface area of hemisphere (ice cream) if the base radius is 7cm?

   (c) What is the total surface area of cone with hemispherical ice cream?