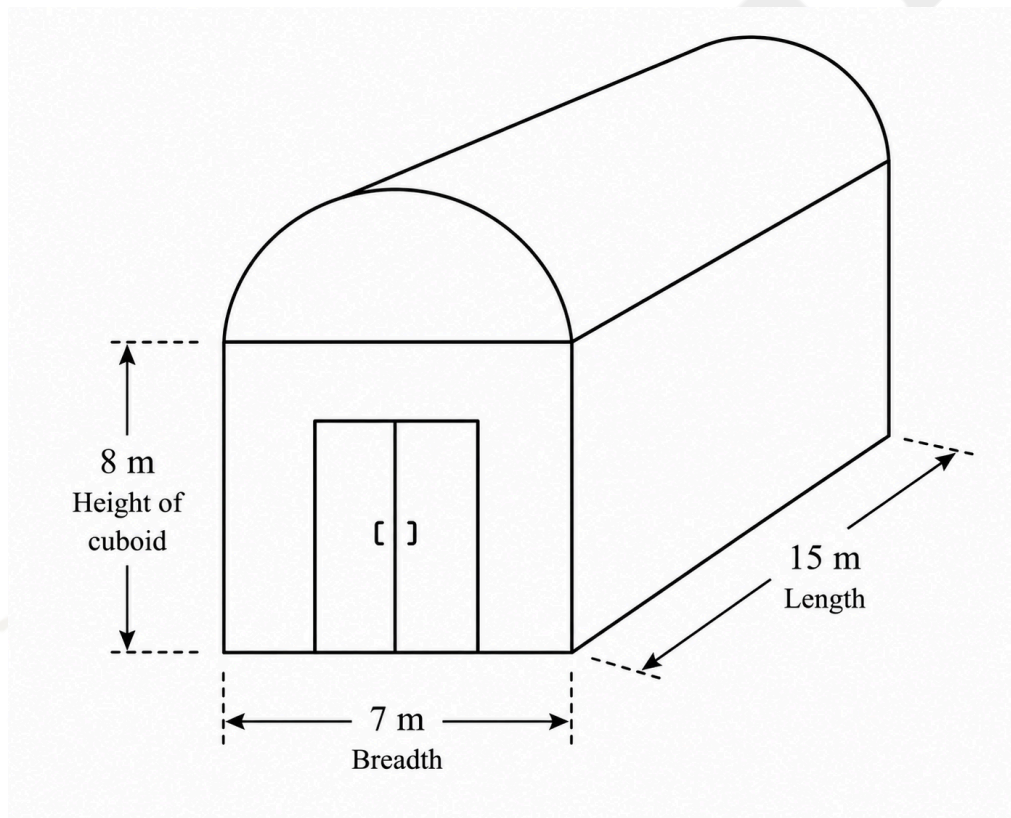


Class 10 Mathematics - Surface Areas and Volumes

Name: _____

Date: _____

Advanced Worksheet 4



Questions

1. Find the volume of the cuboidal portion.
2. Find the volume of the half-cylinder roof.

3. Find the total volume of the shed.
4. If machinery occupies 300 m^3 , how much space remains?
5. If 20 workers occupy 0.08 m^3 each, find the remaining air volume.
6. Which two solids form the shed?

Answer Key

1. Volume of Cuboid
 $= 15 \times 7 \times 8$
 $= 840 \text{ m}^3$
2. Volume of Half Cylinder
 $= (1/2)\pi r^2 h$
 $= (1/2) \times (22/7) \times (3.5)^2 \times 15$
 $= 288.75 \text{ m}^3$
3. Total Volume
 $= 840 + 288.75$
 $= 1128.75 \text{ m}^3$
4. Remaining Space
 $= 1128.75 - 300$
 $= 828.75 \text{ m}^3$
5. Remaining Air Volume
 $= 1128.75 - (300 + 1.6)$
 $= 827.15 \text{ m}^3$
6. Cuboid and Half Cylinder.