

MULTIPLE CHOICE QUESTIONS FOR PRACTICE

SUBJECT: MATHEMATICS UNIT: SURFACE AREA AND VOLUME

CLASS:10

STUDENT NAME:

SCHOOL NAME:

Four alternative /choices are given for each incomplete statement or a question. Click the correct answer.

1. The curved surface area of a solid cylinder of radius 'r' cm and height 'h' cm is

- A) $2\pi(r+h)$ sq cm B) $2\pi rh$ sq cm C) πrl sq cm D) πr^2 sq cm

2. The formula to find total surface area of a cylinder having height "h" and radius "r" is

- A. $2\pi(r+h)$ B. $2\pi rh$ C. πl D. πr^2

3. The formula to find volume of cylinder having height "h" and radius "r"

- A) $2\pi(r+h)$ B) $2\pi rh$ C) $1/3 \pi r^2 h$ D) $\pi r^2 h$

4) The formula to find curved surface area of cone having slant height "l" and radius "r" is

- A) $\pi(r+h)$ B) $2\pi rh$ C) πl D) $\pi(r+l)$

5) The formula to find total surface area of cone having slant height "l" and radius "r" is

- A) $\pi(r+h)$ B) $2\pi rh$ C) πl D) $\pi(r+l)$

6) The formula to find volume of cone having height "h" and radius "r" is

- A) $4\pi r^2$ B) $2\pi rh$ C) $1/3 \pi r^2 h$ D) $\pi r^2 h$

7) The formula to find curved surface area of hemisphere having radius "r" is

- A) πr^2 B) $2\pi r^2$ C) $3\pi r^2$ D) $4\pi r^2$

8) The formula to find total surface area of hemisphere having radius "r" is

- A) πr^2 B) $2\pi r^2$ C) $3\pi r^2$ D) $4\pi r^2$

9) The formula to find volume of hemisphere having radius "r" is

- A) $3\pi r^2$ B) $4/3 \pi r^3$ C) $2/3 \pi r^3$ D) $\pi r^2 h$

10) The formula to find curved surface area of sphere having radius "r" is

- A) πr^2 B) $2\pi r^2$ C) $3\pi r^2$ D) $4\pi r^2$

- 11) The formula to find total surface area of a sphere having radius "r" is
 A) πr^2 B) $2\pi r^2$ C) $3\pi r^2$ D) $4\pi r^2$
- 12) The formula to find volume of sphere having radius "r" is
 A) $4\pi r^2$ B) $\frac{4}{3}\pi r^3$ C) $\frac{2}{3}\pi r^3$ D) $\pi r^2 h$
- 13) The formula to find curved surface area of frustum of a cone having slant height "l" and radius "r" is
 A) $\pi(r_1+r_2)l$ B) $\pi(r_1+r_2)l + \pi r_1^2 + \pi r_2^2$ C) $\pi r l$ D) $\pi r(r+l)$
- 14) The formula to find total surface area of frustum of a cone having slant height "l" and radius "r" is
 A) $\pi(r_1+r_2)l$ B) $\pi(r_1+r_2)l + \pi r_1^2 + \pi r_2^2$ C) $\pi r l$ D) $\pi r(r+l)$
- 15) The formula to find volume of frustum of a cone having height "h" and radius "r" is
 A) $\pi(r_1+r_2)l$ B) $\pi(r_1+r_2)l + \pi r_1^2 + \pi r_2^2$ C) $\pi r^2 h$ D) $\frac{1}{3}\pi h(r_1^2 + r_2^2 + r_1 r_2)$
- 16) The relationship between radius "r" and height "h" and slant height "l" of a cone is
 A) $l^2 = r^2 + h^2$ B) $r^2 = l^2 + h^2$ C) $l^2 = r^2 - h^2$ D) $h = r^2 + l^2$
- 17) The surface area of a sphere is 616 sq.m. The surface area of its hemisphere is
 A) 205.6 cm² B) 308 cm² C) 1232 cm² D) 38 cm²
- 18) The surface area of a sphere is 2464 sq.m. The surface area of its hemisphere is
 A) 205.6 cm² B) 308 cm² C) 1232 cm² D) 38 cm²
- 19) The perimeter of the base of a right circular cylinder is 44 cm and its height is 10 cm. Then its volume is
 A) 490π cm³ B) 440π cm³ C) 374π cm³ D) 980π cm³
- 20) Prepare a cone from "model clay". When wet, cut it with a knife parallel to its base, remove the smaller cone obtained. The solid left is a
 A) Cylinder B) Cone C) Sphere D) Frustum of a cone
- 21) The perimeter of the base of a right circular cylinder is 44 cm and its height is 10 cm. Then its lateral surface area is
 A) 490 cm² B) 440 cm² C) 374 cm² D) 220 cm²

- 22) The volume of a cylinder is 300m^3 . Then the volume of a cone having the same radius and height has that of the cylinder is
 A) 900 m^3 B) 600 m^3 C) 150 m^3 D) 100 m^3
- 23) The surface area of a sphere of radius 7 cm is
 A) 154 cm^2 B) 308 cm^2 C) 616 cm^2 D) 770 cm^2
- 24) The curved surface area of a hemisphere of radius 14 cm
 A) 1232 cm^2 B) 308 cm^2 C) 616 cm^2 D) 2464 cm^2
- 25) If the volume of a cone is 300 m^3 then the volume of a cylinder having same radius and same height as that of cylinder is
 A) 900 m^3 B) 600 m^3 C) 150 m^3 D) 100 m^3
- 26) A funnel is combination of frustum of cone and
 A) Hemisphere B) Cylinder C) Sphere D) Cone
- 27) The surface area of a sphere is 616 cm^2 . Its radius is
 A) 7 cm B) 14 cm C) 21 cm D) 28 cm
- 28) If two solid hemispheres of same radius are joined together along their bases. The surface area of this new solid is
 A) $3\pi r^2$ B) $4\pi r^2$ C) $5\pi r^2$ D) $6\pi r^2$
- 29) A cylinder and cone are of same base, radius and height. Then the ratio of their volume is
 A) 2:1 B) 3:1 C) 2:3 D) 3:2
- 30) A solid has been melted and recast into a wire. Which of the following remains same.
 A) Length B) Volume C) Radius D) Height
- 31) The curved surface area of a frustum of a cone having slant height 4 cm and radii of its circular bases $9/\pi\text{ cm}$ and $3/\pi\text{ cm}$ is
 A) $200\pi\text{ cm}^2$ B) 192 cm^2 C) 96 cm^2 D) 48 cm^2
- 32) The slant height of a cone having radius 5cm and height 12 cm is
 A) 6 cm B) 9 cm C) 11 cm D) 13 cm