

Give exact answers in simplest form, unless otherwise requested.

1. Find lateral area, total area, and volume for a cylinder with base diameter 5 and inside diagonal 13.

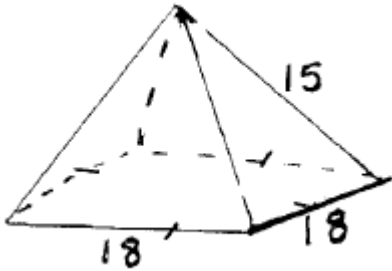


LA =

TA =

V =

2. Find lateral area, total area, and volume.



LA =

TA =

V =

3. Find the outer surface area of the solid.



4. The volume of a sphere is $\frac{32}{3}\pi \text{ cm}^3$. Find the surface area.

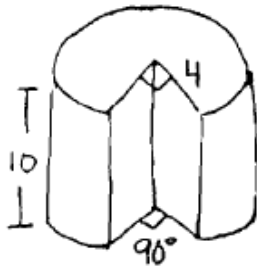
5. Two similar cylinders have heights of 6 in. and 18 in. The total area of the larger cylinder is 486π in². Find the total area of the smaller cylinder.

6. The total area of a cube is 864 cm². Find the length of an edge and the volume.

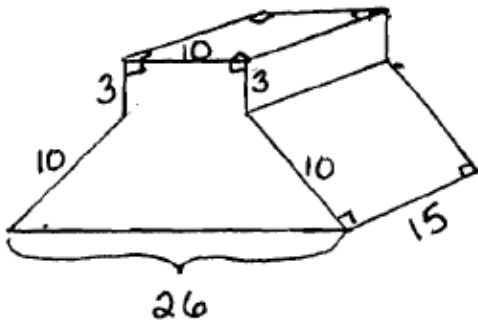
$$e =$$

$$V =$$

7. Find the volume of the partial cylinder shown. Use $\pi \approx 3.14$. (hint: the base is a sector)



8. Find the total area and volume of the prism.



$$TA =$$

$$V =$$

answers: 1. $LA = 60\pi$, $TA = 72.5\pi$, $V = 75\pi$ 2. $LA = 432$, $TA = 756$, $V = 324\sqrt{7}$ 3. 114π

4. 16π cm² 5. 54π in² 6. edge = 12 cm, $V = 1728$ cm³ 7. 376.8

8. $TA = 1206$, $V = 2070$