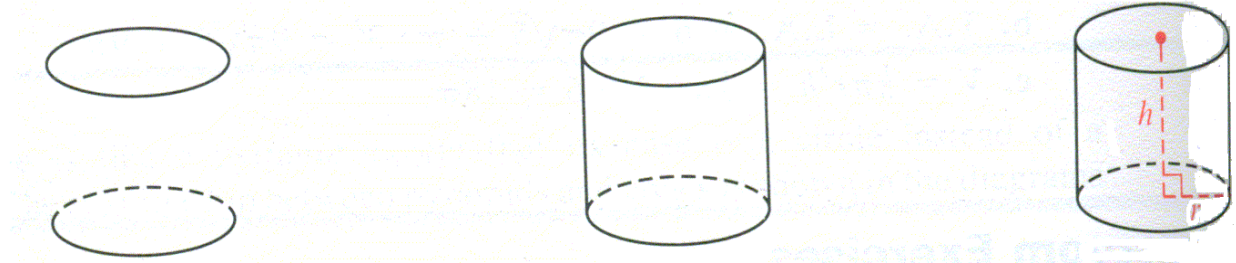


To draw a cylinder:

- 1) Draw 2 congruent ovals
- 2) Join the ovals w/two vertical segments
- 3) Draw the altitude and a radius.



Sketch each cylinder. Then find its lateral area, surface area, and volume.

1. radius = 4 in; height = 5 in

$$\text{L.A.} = 40\pi \text{ in}^2$$

$$\text{S.A.} = 72\pi \text{ in}^2$$

$$\text{V} = 80\pi \text{ in}^3$$

2. radius = 8 cm; height = 10 cm

$$\text{L.A.} = 160\pi \text{ cm}^2$$

$$\text{S.A.} = 288\pi \text{ cm}^2$$

$$\text{V} = 640\pi \text{ cm}^3$$

3. radius = 4 m; height = 3 m

$$\text{L.A.} = 24\pi \text{ m}^2$$

$$\text{S.A.} = 56\pi \text{ m}^2$$

$$\text{V} = 48\pi \text{ m}^3$$

4. radius = 8 ft; height = 15 ft

$$\text{L.A.} = 240\pi \text{ ft}^2$$

$$\text{S.A.} = 368\pi \text{ ft}^2$$

$$\text{V} = 960\pi \text{ ft}^3$$

5. The volume of a cylinder is 64π . The radius equals the height. Find the radius.

4

6. The lateral area of a cylinder is 18π . The height = 6. Find the radius.

1.5 or $\frac{3}{2}$ or $1\frac{1}{2}$

7. The volume of a cylinder is 72π . The height = 8. Find the lateral area.

48π

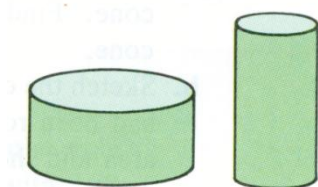
8. The total surface area of a cylinder is 100π . The radius equals the height. Find the radius.

5

9. The total surface area of a cylinder is 40π . The height = 8. Find the radius.

2 [when you factor, you get two answers: -10 & 2 ... -10 is not good]

10. A dog food company needs to choose which container to use for packaging their product. One container is twice as wide as another, but only half as tall. Which container holds more, or do they hold equal amounts. **TIP: Put in numeric values for the container dimensions.**



Container 1 (it holds twice as much)