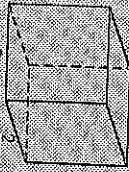


# Solids

**Keep in mind . . .**  
When you start something, finish it!

## Prisms



$$\text{Volume} = (\text{area of base}) \cdot (\text{height})$$

$$\text{Lateral area} = (\text{perimeter of base}) \cdot (\text{height})$$

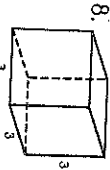
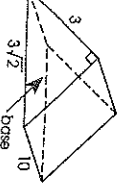
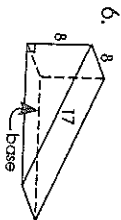
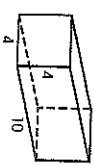
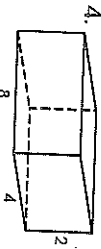
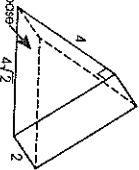
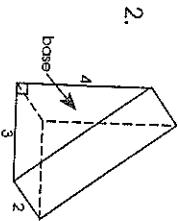
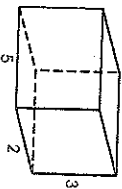
$$\text{Total area} = (\text{lateral area}) + 2 \cdot (\text{area of base})$$

$$V = (3 \cdot 2) \cdot 4 = 24 \text{ cubic units}$$

$$LA = (3 + 2 + 3 + 2) \cdot 4 = 40 \text{ square units}$$

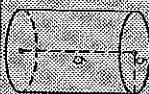
$$TA = 40 + 2 \cdot (3 \cdot 2) = 52 \text{ square units}$$

Find the volume, lateral area and total area of the following prisms.



# Solids

## Right Circular Cylinders



$$\text{Volume} = \pi \cdot (\text{radius})^2 \cdot (\text{height})$$

$$\text{Lateral area} = 2 \cdot \pi \cdot (\text{radius}) \cdot (\text{height})$$

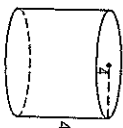
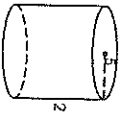
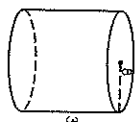
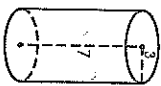
$$\text{Total area} = (\text{lateral area}) + 2 \cdot \pi \cdot (\text{radius})^2$$

$$V = \pi \cdot (3)^2 \cdot (6) = 180\pi \text{ cubic units}$$

$$LA = 2 \cdot \pi \cdot (5) \cdot (6) = 60\pi \text{ square units}$$

$$TA = 60\pi + 2 \cdot \pi \cdot (5)^2 = 110\pi \text{ square units}$$

Find the volume, lateral area and total area of the following right circular cylinders.



5.

