



Not drawn to scale

$$LA = Pb * h = (14 + 14 + 7 + 7) * 1.66 = 69.72$$

$$SA = LA + 2B = 69.72 + 2(14*7) = 265.72 = 266$$

Example 4:

Find the lateral area and surface area of a cylinder with height 6 inches and radius of the base 4 inches. Leave your answer in terms of π .



$$LA = P_b \cdot h = 2\pi r h = 2\pi(4)(6) = 48\pi \text{ in}^2$$

$$\begin{aligned} SA &= LA + 2B = 48\pi + 2\pi r^2 = 48\pi + 2\pi(4)^2 \\ &= 48\pi + 32\pi = 80\pi \text{ in}^2 \end{aligned}$$

Example 5:

Find the lateral area and surface area of a cylinder with height 10 cm and radius of the base 10 cm. Leave your answer in terms of π .

$$LA = 200\pi \text{ cm}^2$$

$$SA = 400\pi \text{ cm}^2$$

Summary: $LA = P_b \cdot h$

$$SA = LA + 2B$$

base is the main shape that are parallel, height is the distance between the bases

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Circumference = $2(\pi)r$, Area of a circle = $(\pi)r^2$