

3.31 Right Circular Cylinder with an Oblique Plane Face

Radius of base: R

The greatest height of a side: h_1

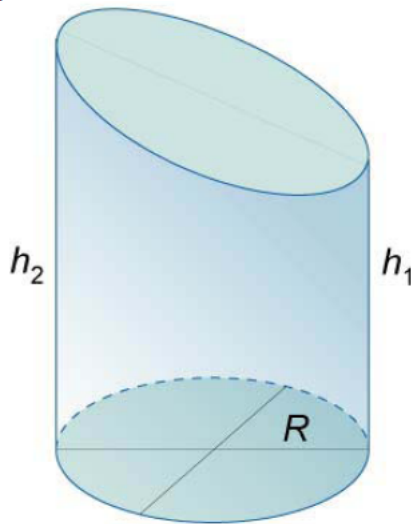
The shortest height of a side: h_2

Lateral surface area: S_L

Area of plane end faces: S_B

Total surface area: S

Volume: V



$$324. \quad S_L = \pi R(h_1 + h_2)$$

Figure 48.

$$325. \quad S_B = \pi R^2 + \pi R \sqrt{R^2 + \left(\frac{h_1 - h_2}{2}\right)^2}$$

$$326. \quad S = S_L + S_B = \pi R \left[h_1 + h_2 + R + \sqrt{R^2 + \left(\frac{h_1 - h_2}{2}\right)^2} \right]$$

$$327. \quad V = \frac{\pi R^2}{2}(h_1 + h_2)$$