3.32 Right Circular Cone

Radius of base: R
Diameter of base: d
Height: H
Slant height: m
Lateral surface area: S_L
Area of base: S_B
Total surface area: S
Volume: V

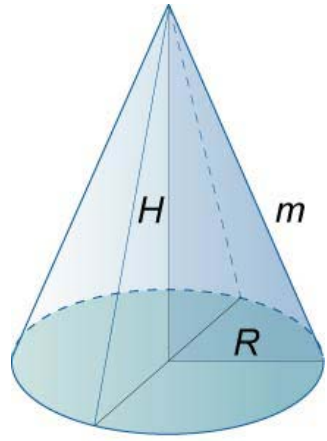

Figure 49.

328. $H = \sqrt{m^2 - R^2}$

329. $S_L = \pi R m = \frac{\pi m d}{2}$

330. $S_B = \pi R^2$

331. $S = S_L + S_B = \pi R(m + R) = \frac{1}{2}\pi d\left(m + \frac{d}{2}\right)$

332. $V = \frac{1}{3}S_B H = \frac{1}{3}\pi R^2 H$