

$$\boxed{1/11} \quad \bar{W} = mg, \quad g = g_0 \left(\frac{R}{R+h} \right)^2$$

From Fig. 1/1, $g_0 = 9.818 \text{ m/s}^2$

@ 28°N latitude & sea level.

At $h = 2440 \text{ m}$:

$$g = 9.818 \left[\frac{6371(10^3)}{6371(10^3) + 2440} \right]^2 = 9.810 \text{ m/s}^2$$

At $h = 8848 \text{ m}$:

$$g = 9.818 \left[\frac{6371(10^3)}{6371(10^3) + 8848} \right]^2 = 9.791 \text{ m/s}^2$$

$$\Delta \bar{W} = m \Delta g = 80(9.810 - 9.791) = \underline{1.576 \text{ N}}$$

