

M.S. 1.4

GIVEN: mass = 10 lb

$g = 31.0 \text{ ft/s}^2$ (~~not~~ 32.17 ft/s^2)

FIND: weight in lbf

ANALYSIS:

$$F = W = mg$$

$$W = (10 \text{ lb}) (31.0 \text{ ft/s}^2) \left[\frac{1 \text{ lbf}}{32.17 \frac{\text{lb} \cdot \text{ft}}{\text{s}^2}} \right]$$

$$W = 9.64 \text{ lbf}$$