

Homework 1: Beckwith Probs. 2.4, 2.5, 2.8, 2.9

2.4. Calculate the force (lbf) necessary to accelerate a weight of 0.5 lbf at 5 ft/s^2 .

2.5. Determine the force (N) necessary to accelerate a mass of 200 g at 25 cm/s^2 . What is the magnitude of this force in units of lbf?

2.8. Determine the factor for converting volume flow rate in cm^3/s units to gal/min.

2.9. Express the universal gas constant of $1545 \text{ ft} \cdot \text{lbf}/\text{lbm} \cdot \text{mol} \cdot ^\circ\text{R}$ in SI units.