

**1.25. Solve:** (a)  $1 \text{ hour} = 1(\text{hour})\left(\frac{3600 \text{ s}}{1 \text{ hour}}\right) = 3600 \text{ s} = 3.60 \times 10^3 \text{ s}$

(b)  $1 \text{ day} = 1(\text{day})\left(\frac{24 \text{ hours}}{1 \text{ day}}\right)\left(\frac{3600 \text{ s}}{1 \text{ hour}}\right) = 8.64 \times 10^4 \text{ s}$

(c)  $1 \text{ year} = 1(\text{year})\left(\frac{365.25 \text{ days}}{1 \text{ year}}\right)\left(\frac{8.64 \times 10^4 \text{ s}}{1 \text{ day}}\right) = 3.16 \times 10^7 \text{ s}$

(d)  $32 \text{ ft/s}^2 = 32\left(\frac{\text{ft}}{\text{s}^2}\right)\left(\frac{12 \text{ inch}}{1 \text{ ft}}\right)\left(\frac{1 \text{ m}}{39.37 \text{ inch}}\right) = 9.75 \text{ m/s}^2$