

Name: _____

Class: _____

Class #: _____

Section #: _____

Instructor: Parker Schnepf

Assignment: 1.1 Homework Exercises

Question 1: (10 points)

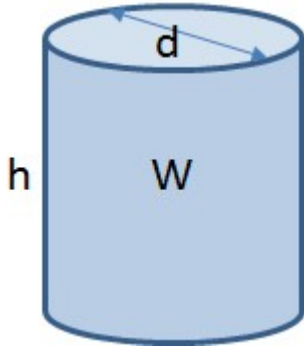
Convert each of the following to three significant digits:

- a). $50 \text{ lb} \cdot \text{ft}$ to $\text{N} \cdot \text{m}$... (ans = $67.8 \text{ N} \cdot \text{m}$)
- b). $350 \text{ lb} / \text{ft}^3$ to kN / m^3 ... (ans = $55 \text{ kN} / \text{m}^3$)
- c). $100 \text{ ft} / \text{h}$ to mm / s ... (ans = $8.47 \text{ mm} / \text{s}$)

Select problem completion status from drop-down list:

Question 2: (10 points)If the density (mass/volume) of a material is $6.25 \text{ slug} / \text{ft}^3$, find its density in SI units:(ans = $3.22 \text{ Mg} / \text{m}^3$)

Select problem completion status from drop-down list:

Question 3: (10 points)

Find the weight of the concrete column in *lbs*, given:

$$h = 1.5 \text{ m}, \quad d = 450 \text{ mm}, \quad \rho = 2.1 \text{ Mg/m}^3$$

(ans: $W = 1,100 \text{ lbs}$)

Select problem completion status from drop-down list:
