

① calculate densities in lbm/ft^3

a) a liquid with density of $995 \text{ kg}/\text{m}^3$

$$= \frac{995 \text{ kg}}{\text{m}^3} \times \frac{1 \text{ lbm}}{0,45359 \text{ kg}} \times \frac{0,028317 \text{ m}^3}{1 \text{ ft}^3}$$

$$= 62,116 \text{ lbm}/\text{ft}^3$$

b) a solid with a specific gravity of 5,7

$$\rho = \rho_{\text{H}_2\text{O}} \cdot \text{specific gravity}$$

$$\rho = 62,43 \text{ lbm}/\text{ft}^3 \cdot 5,7$$

$$\rho = 355,851 \text{ lbm}/\text{ft}^3$$