

LENGTH

$$1 \text{ ft} = 0.3048 \text{ m}$$

$$1 \text{ ft} = 12 \text{ in}$$

$$1 \text{ in} = 0.0254 \text{ m}$$

$$1 \text{ yd} = 0.9144 \text{ m}$$

VOLUME

$$1 \text{ bbl} = 0.15899 \text{ m}^3$$

$$1 \text{ ft}^3 = 2.8317 \times 10^{-2} \text{ m}^3$$

$$1 \text{ Imp (UK) gallon} = 4.546 \text{ L}$$

$$1 \text{ m}^3 = 1000 \text{ L}$$

$$1 \text{ cm}^3 = 1.00 \times 10^{-6} \text{ m}^3$$

MASS

$$1 \text{ lb} = 0.45359 \text{ kg}$$

$$1 \text{ (Imperial) ton} = 1016.05 \text{ kg}$$

PRESSURE

$$1 \text{ psi} = 6894.8 \text{ Pa}$$

$$1 \text{ mm Hg} = 133.3 \text{ Pa}$$

$$1 \text{ atm} = 101325 \text{ Pa}$$

$$= 14.696 \text{ psi}$$

$$= 760 \text{ mm Hg}$$

$$1 \text{ Torr} = 133.3 \text{ Pa}$$

FORCE

$$1 \text{ dyne} = 1.0000 \times 10^{-5} \text{ N}$$

ENERGY

$$1 \text{ Btu} = 1055.1 \text{ J}$$

$$1 \text{ cal} = 4.1868 \text{ J}$$

$$1 \text{ therm} = 1.0551 \times 10^8 \text{ J}$$

TEMPERATURE

DIFFERENCE:

$$1 \text{ }^{\circ}\text{C} = 1 \text{ K} = 1.8 \text{ }^{\circ}\text{R} = 1.8 \text{ }^{\circ}\text{F}$$

$$\text{ABSOLUTE: } ^{\circ}\text{C} = (^{\circ}\text{F} - 32) \frac{5}{9}$$

NUMBER OF MOL

$$1 \text{ lb-mol} = 453.6 \text{ mol}$$

$$(\text{mol} = \text{gmol})$$

$^{\circ}\text{API}$ Gravity

$$^{\circ}\text{API} = \frac{141.5}{SG_{\frac{60^{\circ}\text{F}}{60^{\circ}\text{F}}}} - 131.5$$

Note: Please give your answers to the **same number of significant figures** as the given data