

## Essential conversion factors for CHEM 1002 and beyond

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$$2.54 \text{ cm} = 1.00 \text{ inches}$$

$$12 \text{ inches} = 1 \text{ foot}$$

$$1.6 \text{ km} = 1.0 \text{ mile}$$

$$3 \text{ ft} = 1 \text{ yard}$$

$$10^2 \text{ cm} = 1 \text{ m}$$

$$10^3 \text{ mm} = 1 \text{ m}$$

$$10^6 \text{ } \mu\text{m} \text{ (microns or micrometers)} = 1 \text{ m}$$

$$10^9 \text{ nm} = 1 \text{ m}$$

$$2.2 \text{ lbs} = 1.0 \text{ kg}$$

$$454 \text{ g} = 1.00 \text{ lbs}$$

$$16 \text{ oz} = 1 \text{ lb}$$

$$10^3 \text{ g} = \text{kg}$$

$$10^{-3} \text{ g} = \text{mg}$$

$$3600 \text{ s} = 1 \text{ hour}$$

$$1 \text{ mL} = 1 \text{ cm}^3$$

$$10^3 \text{ mL} = 1 \text{ L}$$

$$10^3 \text{ L} = 1 \text{ m}^3$$

Useful temperatures to recall:

$$0 \text{ } ^\circ\text{C} = 32 \text{ } ^\circ\text{F}$$

$$37 \text{ } ^\circ\text{C} = 98.6 \text{ } ^\circ\text{F}$$

$$100 \text{ } ^\circ\text{C} = 212 \text{ } ^\circ\text{F}$$

$$^\circ\text{C} = (^\circ\text{F} - 32) * 5/9$$

$$^\circ\text{F} = ^\circ\text{C} * 9/5 + 32$$

$$1 \text{ atm} = 14.7 \text{ psi (lbs per square inch)} = 760 \text{ mm Hg} = 760 \text{ Torr} = 1.01 \times 10^5 \text{ Pa.}$$