

L78 Mole-Mass Conversions

TODAY'S
DATE

E.Q.: How are moles and mass related?

molar mass values allow you
to convert btwn mass (in grams)
and moles of a substance

e.g., 2.5 g H_2O \rightarrow ? mol H_2O

$$2.5 \cancel{\text{g } H_2O} \times \frac{1 \text{ mol } H_2O}{18.016 \cancel{\text{g } H_2O}} = 0.14 \text{ mol } H_2O$$

e.g., 2.5 mol H_2O \rightarrow ? g H_2O

$$2.5 \cancel{\text{mol } H_2O} \times \frac{18.016 \cancel{\text{g } H_2O}}{1 \cancel{\text{mol } H_2O}} = 45 \text{ g } H_2O$$