

# Mole Conversions

Mass  
(g)

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(g)

$$\times \frac{1 \text{ mol } X}{\text{molar mass } X}$$

$$\times \frac{\text{molar mass } X}{1 \text{ mol } X}$$

Volume  
(L)

Volume  
(L)

$$\times \frac{1 \text{ mol } X}{22.4 \text{ L } X}$$

$$\times \frac{22.4 \text{ L } X}{1 \text{ mol } X}$$

Particles  
(ions, atoms,  
formula units,  
molecules, etc.)

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$$\times \frac{1 \text{ mol } X}{6.022 \times 10^{23} \text{ p. } X}$$

$$\times \frac{6.022 \times 10^{23} \text{ p. } X}{1 \text{ mol } X}$$

