

# Calculations I & 2

## Percent %

$$(w/w) = \frac{x \text{ g}}{100 \text{ g}} * 100$$

$$(v/v) = \frac{x \text{ ml}}{100 \text{ ml}} * 100$$

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$$\text{mg \%} \Rightarrow \frac{x \text{ mg}}{100 \text{ ml}}$$

## Molarity $\frac{\text{mole}}{\text{L}}$

$$M = \frac{[\text{number of moles}]}{V \text{ (L)}} \rightarrow \frac{\text{mass}}{\text{m.w}}$$

## Normality

$$N = n * M \xrightarrow{\text{Molarity}}$$

↓  
number  
of  $\text{H}^+$  or  $\text{OH}^-$

## Dilutions

$$C_1 V_1 = C_2 V_2$$