Stoichiometry

What is it?

Stoichiometry- using math and the mole relationship to solve for mass, moles, atoms, or liters.

Things to remember

1. **Your reaction must be balanced.**

2. The **coefficients** will represent mole ratios.

3. **Reactants** on the left, **Products** on the right side of the reaction

How to Solve

$$\frac{\text{Given}}{\text{Wanted}} = \underline{\hspace{8cm}}$$

Coefficient(given unit)   **Coefficient**(wanted unit)

1mole=GFM=6.02×10^{23}atoms=22.4L

Let's practice

Al_2S_3 + NaCl → $AlCl_3$ + Na_2S You have 27.0 grams of sodium chloride. How many grams of Aluminum chloride would you produce?

More practice

Fe + O$_2$ → Fe$_2$O$_3$ You are given 63.0liters of oxygen gas. How many grams of Iron react with it?

Last one

$CrCl_3$ + Br_2 → $CrBr_3$ + Cl_2 You are given 8.21×10^{22} atoms of Bromine. How many grams of Chromium bromide would you form?