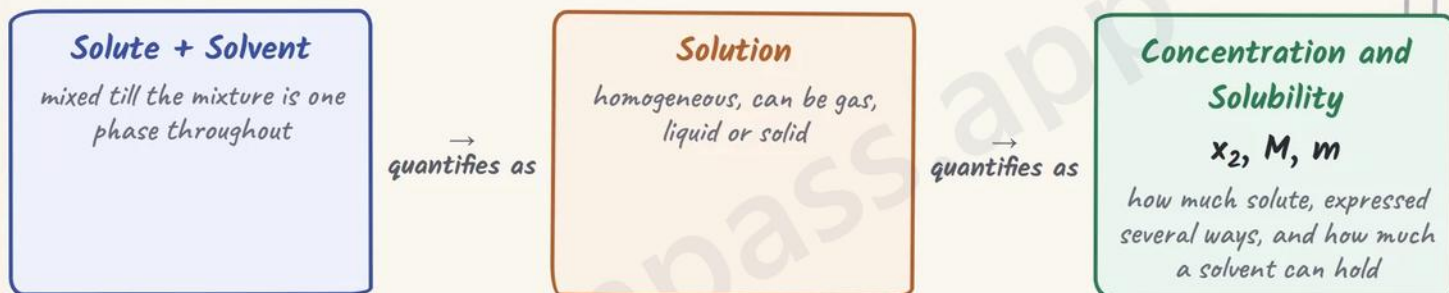


one phase, many components, and how much of each decides everything



and back: from any two of these you can get the others, once density and molar mass are known

Types of Solutions

- solvent is usually the component present in the LARGER amount
- it sets the physical state of the solution
- solute and solvent can each be solid, liquid or gas: nine combinations exist
- this chapter focuses mainly on solid-in-liquid, with some gas-in-liquid; solvent is usually water

The Nine Types of Solutions

Solid in Liquid

sugar in water

Solid in Solid

alloys, brass

Solid in Gas

iodine vapour in air

Liquid in Liquid

ethanol in water

Liquid in Solid

mercury amalgam in silver

Liquid in Gas

chloroform vapour in nitrogen

Gas in Liquid

soda, CO_2 in water

Gas in Solid

hydrogen in palladium

Gas in Gas

air