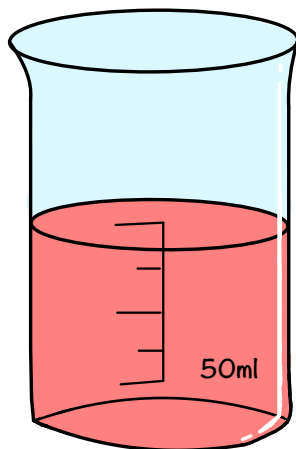
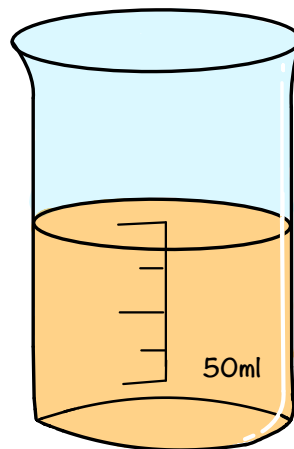


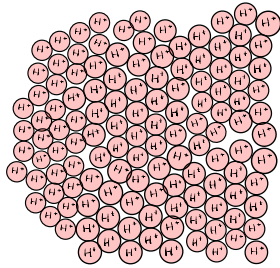
high concentration



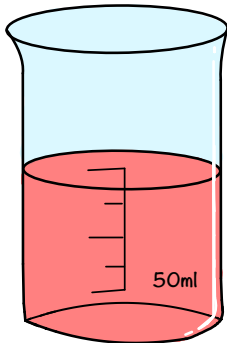
low concentration



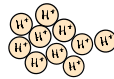
increase by a factor of 10



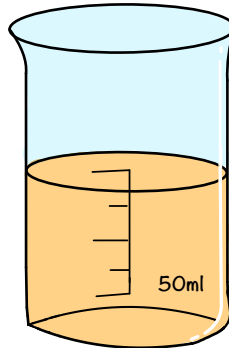
100 hydrogen ions



pH 1



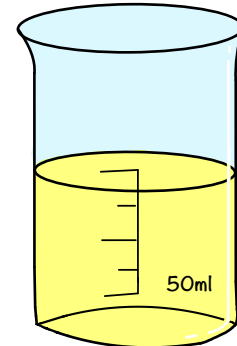
10 hydrogen ions



pH 2



1 hydrogen ion



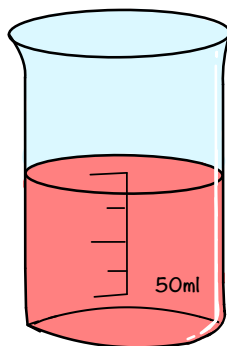
pH 3

decrease by 1

increase by a factor of 10

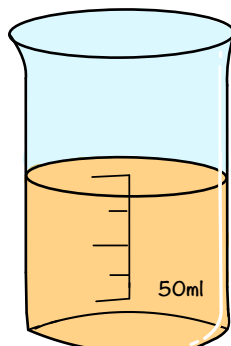


$0.1 \text{ H}^+ \text{ mol/dm}^3$



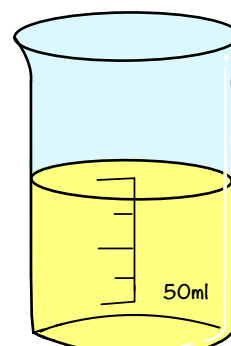
pH 1

$0.01 \text{ H}^+ \text{ mol/dm}^3$



pH 2

$0.001 \text{ H}^+ \text{ mol/dm}^3$

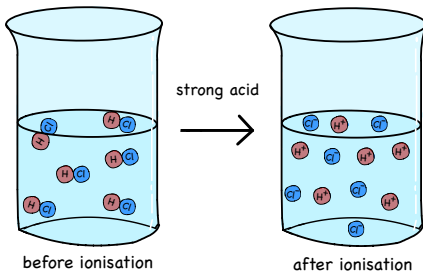


pH 3



decrease by 1

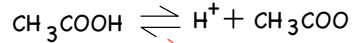
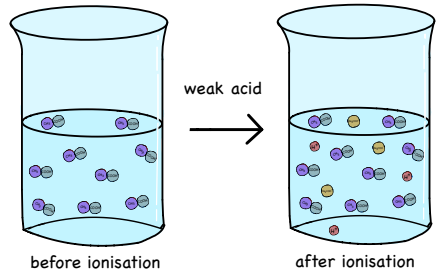
Concentration of Acids



a strong acid is completely ionised in aqueous solution

E.g., hydrochloride, nitric and sulfuric

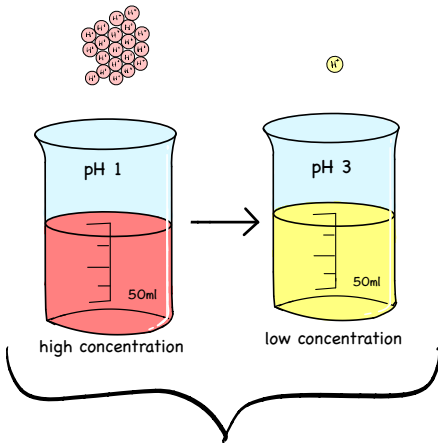
concentrated	more acid per volume of solution
dilute	less acid per volume of solution
strong	completely ionised
weak	partially ionised



reversible reaction which does not go to completion

a weak acid is only partially ionised in aqueous solution

E.g., ethanoic, citric and carbonic

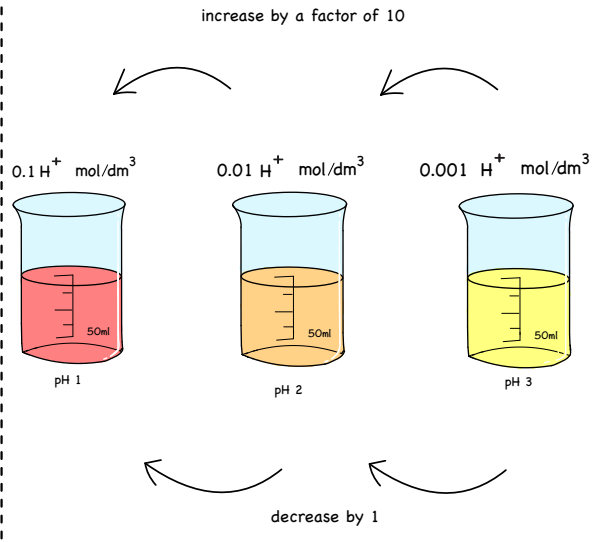


the pH of a solution is a measure of its concentration of hydrogen ions

the higher the concentration of hydrogen ions, the lower the pH

the lower the concentration of hydrogen ions, the higher the pH

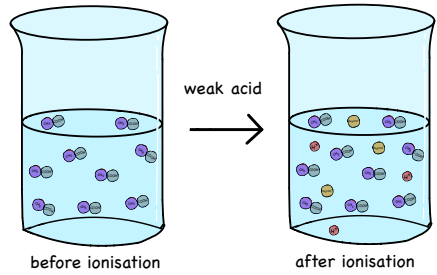
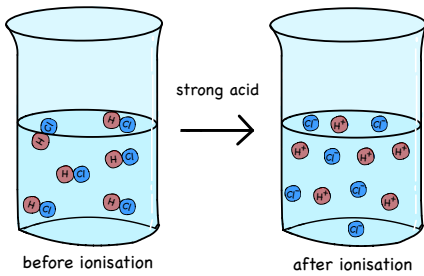
every 1- unit decrease in pH X 10 hydrogen ion concentration



g/dm^3 mass of solute $\div$ volume of solution

mol/dm^3 moles of solute $\div$ volume of solution

Concentration of Acids



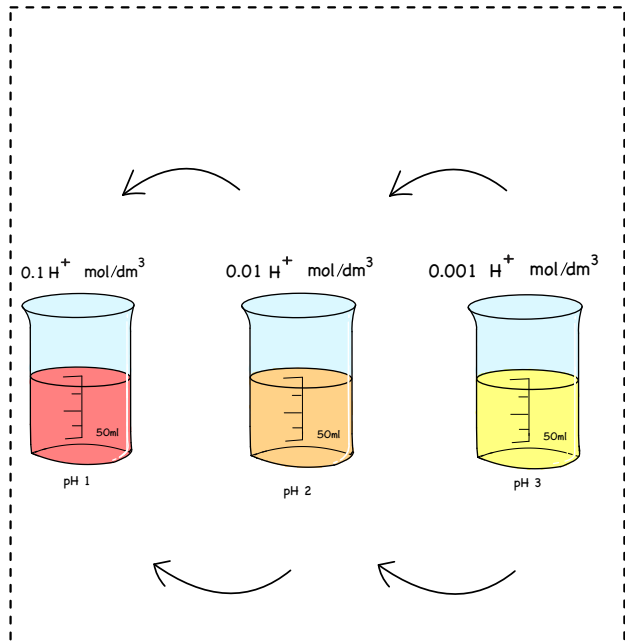
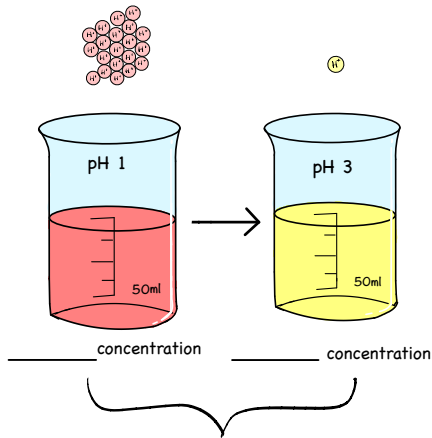
a strong acid is

E.g.,

	more acid per volume of solution
	less acid per volume of solution
strong	
weak	

a weak acid is

E.g.,



the higher the concentration of hydrogen ions,
the _____

g/dm^3

the lower the concentration of hydrogen ions,
the _____

mol/dm^3