

Standard Symbols

L	Liters
mL	Milliliters
nm	Nanometers
atm	Atmospheres
mm Hg	Millimeters of Mercury
J	Joules
kJ	Kilojoules
V	Volts
mol	Moles
E	Energy
ν	Frequency
λ	Wavelength
k	rate constant
t	time

Standard Values

Mole	6.02×10^{23}		
Standard Temperature	273K	0°C	32°F
Standard Pressure	1 atm	760 mm Hg	760 torr

Equilibrium Constants

Kc	Molar Concentrations
Kp	Gas Pressures
Ka	Weak Acid
Kb	Strong Acid
Kw	Water

Equilibrium

Equilibrium Tips

Place products over reactants

In an equation if there is 2 moles of a compound then in the equilibrium expression the value of that compound in the expression is squared

Don't add solids to equilibrium expressions

Changes in molarity or pressure on one side of the equation will reflect opposite on the other side of the equation

To find equilibrium constant in a reaction

Write reaction equation

Write equilibrium expression with products over reactants and squaring any products of reactants that have more than one mole in the equilibrium equation

Find the molarity of all the compounds in the equation by dividing the moles of the compound by the volume of the container in liters

Substitute the molarity values into the equilibrium expression and solve for Kc

To find molar amounts using equilibrium constant for the equation

Find all known molarities of compounds in equation

Set up equilibrium expression with products over reactants and substitute in a variable for the unknown molarity

Solve for variable using the equilibrium constant for that reaction

