The equilibrium constant, K_{eq}, is the ratio of the product concentration to the reactant concentration when equilibrium is achieved. The exact mathematical form of the equilibrium expression, relating K_{eq} to the various reactants and products, depends on the specific chemical equilibrium considered.

The use of square brackets [ ] indicates that concentrations of reactants and products are equilibrium concentrations and are molar concentrations (units of moles/liter). The exponents are the coefficients from the balanced chemical equation.

1) $K_{eq} = \frac{[CO][H_2O]}{[CO_2][H_2]}$

2) $K_{eq} = \frac{[N_2][[H_2O]^2}{[NO]^2[H_2]^2}$

3) $K_{eq} = \frac{[Cu^{2+}]}{[Ag^{+}]^2}$

4) $K_{eq} = \frac{[HI]^2}{[H_2][I_2]}$