Lesson Overview
ICE Tables

Objective: The student will be able to utilize ICE tables to indicate equilibrium conditions given initial reaction conditions.

ICE Tables

Initial - Change - Equilibrium

Discuss when to use ICE tables

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Consider the following reaction: A + 2 B <====> 2 C + 3D (all gases @25.0°C)
Initially [A] = 1.50 M and [B] = 1.50 M (before the reaction begins). Once
equilibrium is reached the concentration of D is found to be 1.26 M.

   A. What are the equilibrium concentrations of the other reagents?

   B. What is the value of K_C?

   C. What is the value of K_P?

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Consider the following reaction: $2 A \longleftrightarrow 2B + C$ (all gases @25.0°C and 1 atm.)

Initially $[A] = 5.00$ M (before the reaction begins). Once the decomposition equilibrium is reached $[C] = 0.200$ M. What is the percent ionization of A?

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Consider the following reaction: A <====> B + 2 C (all gases @25.0°C and 1 atm.)

Initially [A] = 5.00 M (before the reaction begins). It is known that A only decomposes 12.0% Once the decomposition equilibrium is reached, what is the value of K_C?