9.4 The Ideal Gas Law

Definitions

- Ideal gas
- Ideal gas law
- Gas constant

Ideal Gas

- A hypothetical gas where the particles have zero mass, zero attraction between particles, particles travel in straight line.
- 1 mole of gas = 22.4 L at 1.0 atm
- Ideal gas law

$$pv = nRT$$

- R is the gas constant for the ideal gas law = $\frac{8.31 kPa \cdot L}{mol \cdot K}$
- The combined gas law give properties and ideal gas law allows you to determine moles.

$$\frac{p_1 v_1}{T_1} = \frac{p_2 v_2}{T_2}$$

Homework

- Review Summary
- Practice Q's: 1-6
- Section Q's: 1-6