

Chapter 12-4: Ideal Gases

- Ideal Gas Law

$$PV = nRT$$

$$R = 8.31 \frac{L \cdot kPa}{K \cdot mole}$$

- Sample Problems
 - You fill a rigid steel cylinder with a volume of 20.0L with nitrogen gas to a pressure of 2.00×10^4 kPa. At 28°C How many moles of N_2 does the cylinder contain?
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 - There are 2.24×10^6 L of methane gas at a pressure of 1.50×10^3 kPa and a temperature of 42°C. How many kilograms of CH_4 are there?
- The Ideal Gas Law and Kinetic Theory
- Departures from the Ideal Gas Law

Homework: Section 12-3 (p342) #22-25, (p346) #26-30