

Gases and Gas Laws

CHM 1311.003 - Practice Questions

1. A balloon has a volume of 2.50 L indoors at 22 C. If it is taken outdoors on a cold day at -15 C what will the volume be?

2. What pressure (torr) is exerted by 10.0 g of O_2 in a 2.50 L container at 27 C?

3. A 22.4 L container at 0 C contains 0.30 mol N_2 , 0.20 mol O_2 , 0.40 mol He, and 0.10 mol CO_2 . What is the partial pressure of each gas?

4. The reaction of 0.654 g of Zn with 1M HCl(aq) produces hydrogen gas. If the gas is collected over water at 30 C and a pressure of 760 torr maintained, what volume will it occupy?

5. Arrange the following gases in order of increasing rate of effusion at 25 C: He, SO₂, CH₃Br, Cl₂.