Dalton's Law of Partial Pressure Practice

1. A container holds three gasses: oxygen, carbon dioxide, and helium. The partial pressures of the three gasses are 2.00 atm, 3.00 atm, and 4.00 atm, respectively. What is the total pressure inside the container?

2. The total pressure of a mixture of H_2, He & Ar is 99.3 kPa. That partial pressure of the He is 42.7 kPa and the partial pressure of Ar is 54.7 kPa. What is the partial pressure of hydrogen?

3. Nitrogen, oxygen, and carbon dioxide are in a closed container. The oxygen has a partial pressure of 15.5 mm Hg. The nitrogen has a partial pressure of 45.8 mm Hg. The total pressure of all gasses is 83.4 mm Hg. What is the partial pressure of the carbon dioxide?

4. Hydrogen gas is collected over water at 20°C. The partial pressure of hydrogen gas is 742.5 torr. What is the total pressure of the gas mixture? Use the chart to find the water vapor pressure.

Temp	Water Vapor Pressure
18°c	15.5 torr
19°c	16.5 torr
20°c	17.5 torr

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Answers: 1) 9.00 atm   2) 1.9 kPa   3) 22.1 mmHg   4) 760.0 torr
---MYP ONLY---

5. A mixture of gas contains 2.00 mol H_2, 3.00 mol NH_3 4.00 mol CO_2 and 5.00 mol N_2 and exerts a total pressure of 800.0 torr. What is the partial pressure of each gas?

Answer: 5) 286 torr N_2 171 torr NH_3 229 torr CO_2 114 torr H_2

Ideal Gas Law Practice

1. At what Kelvin temperature would 0.210 moles of N_2 gas have a pressure of 1266.0 kPa in a 250.0 mL tank? You must change ml into L. (divide the ml by 1000 to get it into L)

2. What volume is occupied by 5.03 g of O_2 at 28°C and a pressure of 758 mm Hg?

3. How many grams of argon gas are needed to fill a 212 Liter tank at STP?

4. How many moles of chlorine gas would occupy a volume of 35.5 L at a pressure of 100.0 kPa and a temperature of 100.0 °C? After determining the number of moles, calculate the number of grams of chlorine (Cl_2) contained in this container?

5. What is the pressure in atm of a 0.130 mol sample of gas with a volume 2.50L and a temperature of 352K?

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Answers   1)181 K   2) 3.89 L   3) 378.10 g Ar   4) 1.14 mol, 81.2 g   5) 1.50 atm