Name: _____

Block: _____

Partial Pressures

1. A $5\,\ell$ container contains 4.0 g of O_2 and 4.0 g of He at 65°C. What is the partial pressure of each gas? What is the total pressure?

2. A $50\,\ell$ gas cylinder contains 5.21 kg of N_2 and 4.49 kg of O_2. If the temperature is 24°C, what is the total pressure in the cylinder?

3. A sample of O_2 gas is collected by water displacement at 25°C. If the atmospheric pressure in the laboratory is 100.7 kPa and the vapor pressure of water is 3.17 kPa at 25°C, what is the partial pressure of the O_2 gas in the sample?

4. Two flasks are connected with a stopcock. The first flask has a volume of 5 liters and contains nitrogen gas at a pressure of 0.75 atm. The second flask has a volume of 8 ℓ and contains oxygen gas at a pressure of 1.25 atm. When the stopcock between the flasks is opened and the gases are free to mix, what will the (total) pressure be in the resulting mixture?