

## Dalton's Law of Partial Pressure

(make sure you round to the nearest hundredths decimal place)

1.  $\text{CO}_2$ ,  $\text{O}_2$ , and  $\text{H}_2$  are placed in a container. The gases are at standard temperature and pressure. The pressure for  $\text{CO}_2$  is 2.5 atm, the pressure for  $\text{O}_2$  is 0.7 atm, and the pressure of  $\text{H}_2$  is 1.2 atm. What is the total pressure of the mixture?
2. Two unknown gases are placed in a container at standard temperature and pressure. Unknown gas A has a pressure of 800 mmHg. The total pressure in the container for both gases is 1125 mmHg. What is the partial pressure for unknown gas B?
3. 3.2 atm of  $\text{N}_2$  and 0.5 atm of CO are placed in a container at STP. What is the total pressure?
4. 900 mmHg of  $\text{Cl}_2$  gas is mixed with  $\text{NO}_2$  gas. The total pressure of the mixture is 2225 mmHg. What is the partial pressure of  $\text{NO}_2$  gas in the mixture?
5. 1.3 atm of gas A, 522 mmHg of gas B, and 78.3 kPa of gas C are placed in a container at standard temperature and pressure. What is the total pressure of the mixture? (answer should be in kPa)
6. 88.7 mmHg of  $\text{N}_2$ , 3.7 atm of CO, 900 torr of  $\text{F}_2$ , and  $\text{Cl}_2$  gas are placed in a container. The total pressure for the mixture is 7.2 atm. What is the partial pressure of  $\text{Cl}_2$  gas in the mixture? (answer should be in atm)