(10-9) 250 mL, 23°C, 2.3 g C_3H_8 → 0.05 mole

0.25 L → V

296 K → T

n

$R = 0.08206 \frac{L \cdot atm}{mole \cdot K}$

$PV = nRT$

Dec 10-8:03 AM

(10-10) SF_6, 707 torr, 21°C, $d = ?$

$PV = nRT$

$PV = \frac{g}{MW} RT$

$\left(d = \frac{g}{V}\right) = \frac{P(MW)}{RT} = \frac{\frac{707}{760}(146)}{0.08206(294)}$

$\frac{MW}{l} = \frac{gRT}{PV}$

$\frac{MW}{l} = \frac{d}{\frac{g}{V}} \frac{RT}{P}$

$\frac{MW}{l} = \frac{dRT}{P}$

Dec 10-8:22 AM

Daltons Law of Partial Pressures

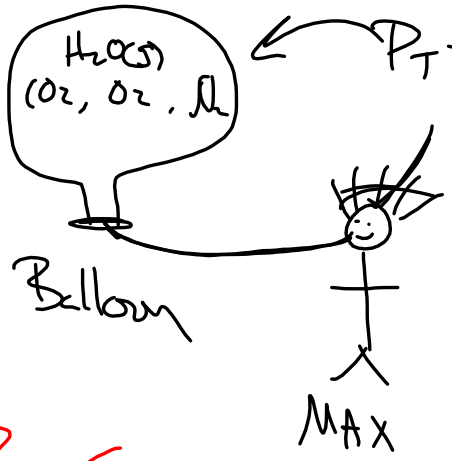
"Parts is Parts is pieces is parts"

TYSON CHICKEN.

Dead chicken in STOP N SHOP

2 legs	2 legs	2 leg	2 leg
2 wings	2 wing	2 wing	2 wing
2 Thigh	2 Thy	2 Thy	2 Thy
2 breast	2 brea	2 bre	2 bre

Dec 10-8:28 AM



P_T = 3atm ⇐ TOTAL Pressure

Each gas exerts a "Partial Pressure"

$P_T = P_{CO_2} + P_{O_2} + P_{N_2} + P_{H_2O}$

H_2O = 0.4 atm

O_2 = 0.5 atm

CO_2 = 0.2 atm

N_2 = 1.9 atm ✓

$P_T = \Sigma$ partial pressures of each gas.

Dec 10-8:28 AM

Find moles of each gas present

$P_{gas} = X_{gas} P_T$

Partial Pressure of the gas in question

MOLE FRACTION

Total pressure.

$\frac{\text{Moles of gas in question}}{\text{Total \# Moles present.}}$ $\frac{\text{Part}}{\text{Whole}}$

Dec 10-8:36 AM

$P_1 V = n_1 RT$ $P_2 V = n_2 RT$

$P_1 = \frac{nRT}{V}$

Mix in a container

Mole fraction of gas 1 $\frac{\text{gas 1}}{\text{Total}}$

$P_1 = \frac{n_1 RT}{V}$

$P_T = \frac{n_T RT}{V}$

$= \frac{n_1}{n_T}$ Mole fraction

Dec 10-8:39 AM

3 moles of a mixture. 0.5 mole X
2.5 mole Y

$P_T = 10$ atm

$P_x = X_x P_T$

$= \frac{0.5}{3.0}(10)$

$P_x = 1.67$ atm

$P_y = X_y P_T$

$= \frac{2.5}{3}(10)$

$P_y = 8.33$

Dec 10-8:42 AM

10 / 60 + 68

Dec 10-8:46 AM