

393

#9

$$P_T = 6.11 \text{ atm}$$

$$P_A = 1.68 \text{ atm}$$

$$P_B = 3.89 \text{ atm}$$

$$P_C = ?$$

$$P_T = P_A + P_B + P_C$$

$$P_C = P_T - P_A - P_B$$

$$P_C = 6.11 \text{ atm} - 1.68 \text{ atm} - 3.89 \text{ atm}$$

$$P_C = 0.54 \text{ atm}$$

#62

$$V_1 = 638 \text{ mL}$$

$$P_1 = 0.893 \text{ atm}$$

$$T_1 = 12^\circ\text{C} + 273 = 285 \text{ K}$$

$$P_2 = ?$$

$$V_2 = 881 \text{ mL}$$

$$T_2 = 18^\circ\text{C} + 273 = 291 \text{ K}$$

$$\frac{P_1 V_1}{T_1} = \frac{P_2 V_2}{T_2}$$

$$\frac{P_1 V_1 T_2}{T_1 V_2} = P_2$$

$$\frac{0.893 \text{ atm} \times 638 \text{ mL} \times 291 \text{ K}}{285 \text{ K} \times 881 \text{ mL}}$$

$$0.660 \text{ atm}$$

#70

$$CO_{MM} = 28.01 \text{ g/mole}$$

$$SO_{3MM} = 80.06 \text{ g/mole}$$

CO lighter so effuses & diffuses faster.