

Day 3.3 Warm-Up (NO CALCULATORS)

1. A flask contains 0.25 mole of $\text{SO}_2(\text{g})$, 0.50 mole of $\text{CH}_4(\text{g})$, and 0.50 mole of $\text{O}_2(\text{g})$. The total pressure of the gases in the flask is 800 mm Hg. What is the partial pressure of the $\text{SO}_2(\text{g})$ in the flask?

A) 800 mm Hg
B) 600 mm Hg
C) 200 mm Hg
D) 160 mm Hg

2. Which of the following has an average atomic or molecular speed closest to that of N_2 molecules at 0°C and 1 atm?

A) Ne
B) Xe
C) O_2
D) CO

3. When 6.0 L of $\text{He}(\text{g})$ and 10. L of $\text{N}_2(\text{g})$, both at 0°C and 1.0 atm, are pumped into an evacuated 4.0 L rigid container, the final pressure in the container at 0°C is

A) 2.0 atm
B) 4.0 atm
C) 6.4 atm
D) 16 atm