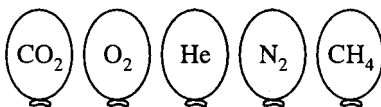


12 • Gases and Their Properties

A P Q U E S T I O N



Represented above are five identical balloons, each filled to the same volume at 25°C and 1.0 atmosphere pressure with the pure gases indicated.

- (a) Which balloon contains the greatest mass of gas? Explain.
- (b) Compare the average kinetic energies of the gas molecules in the balloons. Explain.
- (c) Which balloon contains the gas that would be expected to deviate most from the behavior of an ideal gas? Explain.
- (d) Twelve hours after being filled, all the balloons have decreased in size. Predict which balloon will be the smallest. Explain your reasoning.