1. A rigid cylinder contains a sample of gas at STP. What is the pressure of this gas after the sample is heated to 410 K ?
A) 1.0 atm
B) 0.50 atm
C) 0.67 atm
D) 1.5 atm
2. When a sample of gas is cooled in a sealed, rigid container, the pressure the gas exerts on the walls of the container will decrease because the gas particles hit the walls of the container
A) less often and with less force
B) less often and with more force
C) more often and with less force
D) more often and with more force
3. A $100 .-$ milliliter sample of helium gas is placed in a sealed container of fixed volume. As the temperature of the confined gas increases from $10 .{ }^{\circ} \mathrm{C}$ to $30 .{ }^{\circ} \mathrm{C}$, the internal pressure
A) decreases
B) increases
C) remains the same
4. As the pressure on a given sample of a gas increases at constant temperature, the mass of the sample
A) decreases
B) increases
C) remains the same
