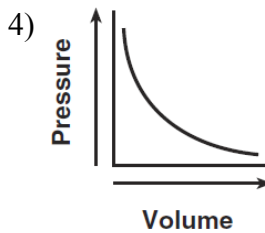
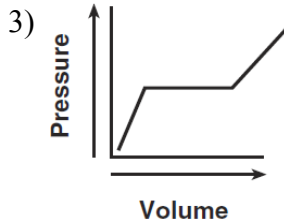
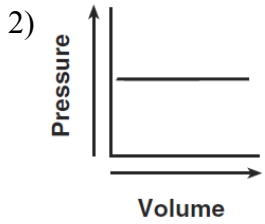
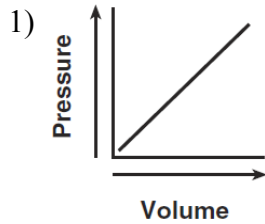


1) Which graph represents the relationship between pressure and volume for a sample of an ideal gas at constant temperature?



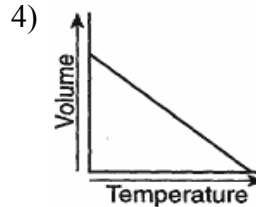
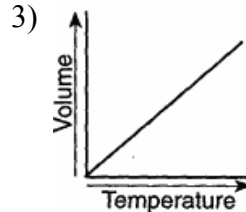
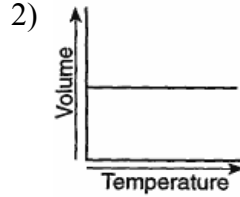
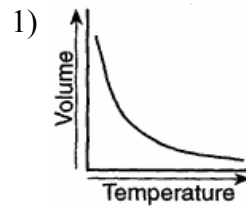
2) A sample of gas is held at constant pressure. Increasing the kelvin temperature of this gas sample causes the average kinetic energy of its molecules to

- 1) decrease and the volume of the gas sample to decrease
- 2) decrease and the volume of the gas sample to increase
- 3) increase and the volume of the gas sample to decrease
- 4) increase and the volume of the gas sample to increase

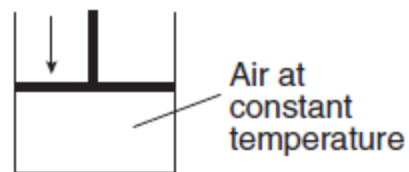
3) As the temperature of a given sample of a gas decreases at constant pressure, the volume of the gas

- 1) decreases
- 2) increases
- 3) remains the same

4) Which graph represents the relationship between volume and Kelvin temperature for an ideal gas at constant pressure?



5) A cylinder with a tightly fitted piston is shown in the diagram below.



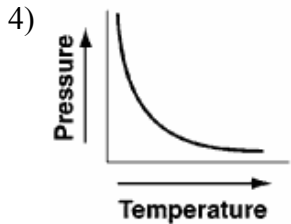
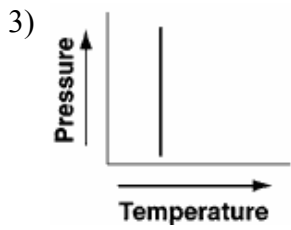
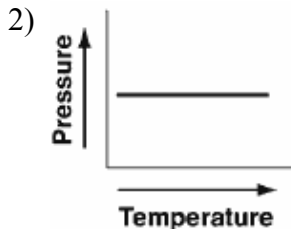
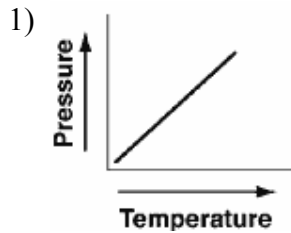
As the piston moves downward, the number of molecules of air in the cylinder

- 1) decreases
- 2) increases
- 3) remains the same

6) As the volume of a fixed mass of a gas increases at constant temperature, the pressure of the gas

- 1) decreases
- 2) increases
- 3) remains the same

7) Which graph shows the pressure-temperature relationship expected for an ideal gas?



8) As the temperature of a gas increases with the volume remaining constant, the pressure of the gas

- 1) decreases
- 2) increases
- 3) remains the same

9) The volume of a 1.00-mole sample of an ideal gas will decrease when the

- 1) pressure decreases and the temperature decreases
- 2) pressure decreases and the temperature increases
- 3) pressure increases and the temperature decreases
- 4) pressure increases and the temperature increases

10) As the pressure of a gas at 150 kPa is changed to 100 kPa at constant temperature, the volume of the gas

- 1) decreases
- 2) increases
- 3) remains the same

11) Under which conditions will the volume of a given sample of a gas increase?

- 1) decreased pressure and decreased temperature
- 2) decreased pressure and increased temperature
- 3) increased pressure and decreased temperature
- 4) increased pressure and increased temperature

12) A sample of a gas is at STP. As the pressure decreases and the temperature increases, the volume of the gas

- 1) decreases
- 2) increases
- 3) remains the same

13) As the volume of a 1-mole sample of gas increases, with temperature remaining constant, the pressure exerted by the gas

- 1) decreases
- 2) increases
- 3) remains the same

14) 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

- 1) less often and with less force
- 2) less often and with more force
- 3) more often and with less force
- 4) more often and with more force