

1. 385 mm Hg = \_\_\_\_\_ kilopascals = \_\_\_\_\_ atm.
2. The pressure at the top of Mount Everest is 33.7 kPa. Is that pressure greater or less than 0.25 atm?
3. According to the assumptions of kinetic theory, how do the particles in a gas move?
4. Use kinetic theory to explain what causes gas pressure.
5. Express the pressure 545 mm Hg in kilopascals.
6. How can you raise the average kinetic energy of the water molecules in a glass of water?
7. A cylinder of oxygen gas is cooled from 300 K to 150 K. By what factor does the average kinetic energy of the oxygen molecules in the cylinder decrease?
20. What is meant by elastic collision?
25. Explain the relationship between the absolute temperature of a substance and the kinetic energy of its particles.
27. What does the abbreviation STP represent?
29. What is significant about the temperature absolute zero?
30. By what factor does the average kinetic energy of gas molecules in an aerosol container increase when the temperature is raised from 300 K to 900 K?