

Name _____

Gas Laws

- 1) A gas in a sealed container at constant temperature is at a pressure of 715mmHg and occupies 10.7L of space. What would the final pressure be in mmHg if the volume was increased to 15.5L?
494mmHg
- 2) At constant volume, a sample of gas in a sealed container at 285kPa of pressure and 206K is heated to 500.K, what is the final pressure in kPa of the gas?
692kPa
- 3) A 2.000L sample of a gas in a sealed container at STP is heated to 1000.K and compressed to a volume of 0.500L. What is the final pressure in atm on the gas?
14.7atm
- 4) A 550.mL gas in a sealed container is kept under constant pressure and warmed from 273K to 373K. What is its final volume?
751mL
- 5) How many puffs of a gas do you have if 1 puff of gas was at 100.K and is under 20.0 atm of pressure in a 1.00L flask and then it was transferred into a 0.50L container at 5.0atm of pressure and at a temperature of 250K?
0.050 puffs
- 6) If you have 10.0 puffs of a gas in a 3.0L container under 20.0 atm of pressure and at a temperature of 200.K, what volume would it occupy if the pressure and temperature was held constant and another 3.0 puffs of gas was introduced?
3.9L
- 7) At constant volume, a gas in a sealed container goes from 2.00 atm of pressure at 0.00 °C to 8.00 atm of pressure, what is the final temperature?
1090K
- 8) A 4.00L sample of a gas in a sealed container at 200.kPa of pressure and at a temperature of 300.K is put under 325.kPa of pressure and has its volume decrease to 3.00L. What is the final temperature?
366K
- 9) A 5.00L gas in a sealed container is at STP, and it experiences an increase in pressure to 3.00 atm. If the temperature does not change, what is the final volume?
1.67L
- 10) A 300.cm³ volume of gas in a sealed container at a temperature of 400.K is kept under constant pressure, what would its final temperature be if its volume in increased to 500.cm³?
667K
- 11) A constant amount of a gas is compressed into a 2.00L flask at STP. What was its initial volume if its original temperature was 200.°C and its original pressure was 740.mmHg?
3.56L
- 12) If 4.5 puffs of gas in a 3.5L container at 143kPa and 14°C is opened so that 3.2 puffs of gas is released, then what is the new temperature in the same container if the new pressure is 9.2psi?
440K
- 13) The volume of a gas in a sealed container changes from 2.00L to 0.40L. Its initial pressure was 2.00 atm. What is the final pressure of the gas in kPa under constant temperature?
1.00x10³ kPa
- 14) The temperature of a gas in a sealed container is changed for -12 °C to 45 °C. If the volume is held constant, what is the change in pressure if the original pressure was 1.5 atm?
0.33atm