



Charles' Law
12 Questions

NAME : _____

CLASS : _____

DATE : _____

1. What is the formula for Boyle's Law?

 A $P_1V_1=P_2V_2$ B $P_1V_2=P_2V_1$ C P_1V_1/P_2V_2 D $P_1/V_1=P_2/V_2$

2. There are 40 liters of helium in a balloon at 100 K. If the temperature of the balloon is increased to 200 K, what will the new volume of the balloon be?

 A 45 L B 45.33 L C 80 L D 54 L

3. What is the formula Charles' Law?

 A $T_1/V_1 = T_2/V_2$ B $V = T$ C $V_1/T_1 = V_2/T_2$ D $VT = VT$

4. What is 50 C in Kelvin?

 A 323 B 100 C 223 D 50

5. If 200 L of a gas at 27°C is cooled to -33°C at a constant pressure, the volume will be

 A 250 L B 196 L C 160 L D 204 L

6. The volume of a sample of a gas at 273 °C is 200 liters. If the volume is decreased to 100 liters at constant pressure, what will be the new temperature of the gas?

A 546 K B 273 K
 C 100 K D 0 K

7. There are 40 liters of helium in a balloon at 100 K. If the temperature of the balloon is increased to 200 K, what will the new volume of the balloon be?

A 45 L B 80 L
 C 45.33 L D 54 L

8. Charles' Law deals with what quantities?

A volume/temperature/pressure B pressure/volume
 C volume/temperature D pressure/temperature

9. If the Kelvin temperature of a gas is doubled, the volume of the gas will increase by ____.

A A factor of 2 B A factor of 1
 C A factor of 3 D A factor of 0.5

10. 4. Charles' Law states that as the temperature increases the volume decreases at constant pressure.

A TRUE B FALSE

11. 5. The graph of gas' volume vs. temperature in kelvin scale at constant pressure is a curve line.

A FALSE B TRUE

12. 5. What is the unit for temperature under Charles' Law?

A D.Rankine B b. Celcius
 C c. Fahrenheit D a. Kelvin

