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

$P_1V_1=P_2V_2$ P_1V_1/P_2V_2

$P_1V_2=P_2V_1$ $P_1/V_1=P_2/V_2$

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?

80 L 45 L

54 L 45.33 L

3. What is the formula Charles' Law?

$V = T$ $VT = VT$

$T_1 / V_1 = T_2 / V_2$ $V_1 / T_1 = V_2 / T_2$

4. What is 50 C in Kelvin?

223 323

100 50

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5. 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?

80 L

45 L

54 L

45.33 L

6. Charles' Law deals with what quantities?

pressure/temperature

pressure/volume

volume/temperature

volume/temperature/pressure

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

A factor of 2

A factor of 1

A factor of 3

A factor of 0.5

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

a. Kelvin

b. Celsius

c. Fahrenheit

D. Rankine

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