


UNIT 6 – GAS LAWS

IPOD Questions



IT'S *THE* PROBLEM OF *THE* DAY

IPOD # 32

1. The pressure in a car tire is 198 kPa at 27°C. After a long drive, the pressure is 225 kPa. What is the temperature (in °C) of the air in the tire?
 2. The volume of an ideal gas in a container is 2.0 L. What will be the volume of the gas if the pressure on the container is doubled while the temperature is reduced from 400 K to 200 K?
 - a. 0.5 L
 - b. 2.0 L
 - c. 4.0 L
 - d. 8.0 L
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IPOD # 33

1. Determine the volume occupied by 0.582 mol of a gas at 15°C if the pressure is 81.8 kPa.
2. A gas mixture containing oxygen, nitrogen, and carbon dioxide has a total pressure of 32.9 kPa. If $P_{\text{O}_2} = 6.6$ kPa and $P_{\text{N}_2} = 23.0$ kPa, what is the partial pressure of CO_2 ?

