Answer on Question 48372, Physics, Molecular Physics | Thermodynamics

Question:

A sample neon gas occupies a volume of 2.8L at 1.8atm. What will its volume be at 1.2atm?

Solution:

By the Boyle's law we have:

$$P_1 \cdot V_1 = P_2 \cdot V_2,$$

Therefore, $V_2 = \dfrac{P_1 \cdot V_1}{P_2} = \dfrac{1.8atm \cdot 2.8L}{1.2atm} = 4.2L$.

Answer:

$V_2 = 4.2L$.