

## Answer on Question #67509 – Chemistry – General Chemistry

Given 50 L of gas at , What volume (in Liters) will nitrogen occupy at , at constant pressure?

**Solution:**

$$V_1 = 50 \text{ L}; T_1 = 273 \text{ K}$$

$$T_2 = 350 \text{ K}; V_2 = ?$$

$$pV = nRT$$

$$V_1/T_1 = V_2/T_2$$

$$V_1T_2 = V_2T_1$$

$$V_2 = \frac{V_1T_2}{T_1} = \frac{50 \cdot 350}{273} = 64 \text{ L}$$