Answer on Question #42378, Chemistry, Other

Question:
a quantity of chlorine gas occupies a volume of 50L at 22c and 721 kPa. howmany moles of chlorine gas are present?

Solution:
According to the Ideal Gas Law

n = PV / RT

Substitute values into the equation:

$$n = \frac{7.21 \cdot 10^{5}\, Pa \bullet 5 \cdot 10^{-2}\, m^{3}}{8.31 m^{2} kg \cdot s^{-2} \hat{E}^{-1} mole^{-1} \bullet (273+22) K} = 14.7 mole$$

Answer: 14.7 *mole.*