Answer on Question #56362 - Chemistry - Inorganic Chemistry

Question:

1) 2.34g of sodium chloride was dissolved in 250cm3 of water. What is the concentration of the sodium chloride solution in mol/dm3?

2) When 0.05 mole of oxygen gas reacts with 0.05 mole of hydrogen gas, steam is formed. What would be the remaining volume of gases measured at r.t.p. ?
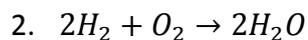
Solution:

1. $C = \frac{n}{V}$

$$n = \frac{m}{M}$$

$$n = \frac{2.34}{58.5}$$
$$n = 0.04$$

$$C = \frac{0.04}{0.25}$$

$$\boldsymbol{C = 0.16}$$

2. $2H_2 + O_2 \rightarrow 2H_2O$

$$V = n * V_M$$

$$V = 0.05 * 22.4$$
$$\boldsymbol{V = 1.12\ l}$$