**Results:** The volume of water emptied into the beaker is the same volume of oxygen that was introduced in flask B.

**Calculations:**

1. Weight of Flask A and contents before stirring: **123.44g**
2. Weight of Flask B and contents after stirring (O₂ released): **123.21g**
3. Weight of Oxygen evolved: 123.44 - 123.21 = **0.23g**
4. Volume of Oxygen (Volume of water in beaker): **97ml**
5. Temperature of Oxygen: \( \frac{T(\text{flask A}) + T(\text{flask B})}{2} = \frac{30 + 22}{2} = 26^\circ \text{C} \)
6. Temperature of Oxygen in Kelvin: \( 26 + 273.15 = 299.15 \text{ K} \)
7. Barometric Pressure: **745mmHg**
8. Vapour Pressure of water at 299.15K: **25.2mmHg**
9. Volume of Oxygen at STP: \( \frac{P_1V_1}{T_1} = \frac{P_2V_2}{T_2} \) \( \Rightarrow \frac{760(V_1)}{273.15} = \frac{719.8(97)}{299.15} \)
\( V_1 = 83ml = 0.083L \)
10. Molar Volume of Oxygen at STP: \( n(O_2) = \frac{(123.44 - 123.21)}{32} = 0.00718 \text{mol} \)
\( \text{Molar Volume} = \frac{\text{Volume}}{n(O_2)} = \frac{0.083}{0.00718} = 11.56 \text{ L/mol} \)
11. Percent Error: \( \frac{11.56 - 22.4}{22.4} = 48.4\% \)

**Conclusion:** Molar Volume of a gas at STP can be derived from Volume and number of moles of that gas. Certain procedures and setups have to be prepared first.