

## Organic Chemistry Problems

1. What volume of  $\text{CO}_2$  is produced when 32g of ethane is burned in excess  $\text{O}_2$  at 100kPa and 120 °C?

$$V = 69.92 \text{ L}$$

2. A compound is made of C, H, O. When 39.6g of the sample is burned in excess  $\text{O}_2$  we obtain 84.4g of  $\text{CO}_2$  and 11.5g of  $\text{H}_2\text{O}$ . What is the empirical formula?



- b) It was found that at STP the sample was a gas and occupied a volume of 3.575L. What is the molecular formula?

