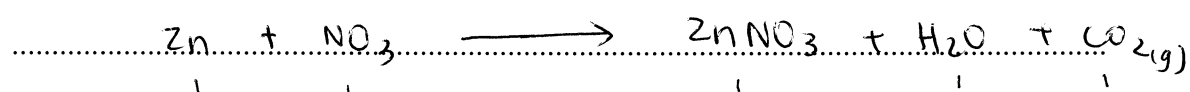


Question 26 (4 marks)

A gas is produced when 10.0 g of zinc is placed in 0.50 L of 0.20 mol L⁻¹ nitric acid. 4

Calculate the volume of gas produced at 25°C and 100 kPa. Include a balanced chemical equation in your answer.



$$n(\text{CO}_2) = \frac{10.0}{44} = 0.227 \times 24.79 = 5.63 \text{ L}$$

$$n(\text{CO}_2) = 0.227272727$$

$$= 0.227 \text{ (3.s.f.)}$$