Question One- Complete the following tables

$$C_7H_{16} + 11O_2 \rightarrow 7CO_2 + 8H_2O$$

Mass of C ₇ H ₁₆	Amount of C ₇ H ₁₆	Mass of O ₂	Amount of O ₂	Mass of CO ₂	Amount of CO ₂	Mass of H₂O	Amount of H₂O
17.3 g							
		24.2 g					
				18.5 g			
						8.2 g	

Question Two

a) 20mL of unknown concentration of NaOH is titrated against 0.103 molL⁻¹ of H₂SO₄

 $2 \text{ NaOH} + \text{H}_2\text{SO}_4 \rightarrow \text{Na}_2\text{SO}_4 + 2\text{H}_2\text{O}$

Trails	#1	#2	#3	#4
Titre (mL)	20.6	21.3	21.3	21.2

Using the results above, determine the concentration of unknown NaOH (show all working and units)

b) 15 mL of unknown concentration of HCl is titrated against 0.0998 molL $^{-1}$ of KOH KOH + HCl \rightarrow KCl + H $_2$ O

Trails	#1	#2	#3	#4
Titre (mL)	18.5	17.4	17.5	17.3

Using the results above, determine the concentration of unknown HCI (show all working and units)