Question One- Complete the following tables

Concentration of standard (molL ⁻¹)	Average titre (mL)	Amount of standard (mol)	Ratio Std : Unkn	Amount of unknown (mol)	Volume of unknown (mL)	Concentration of unknown (molL ⁻¹)
0.102	13.7		1:2		20	
0.113	20.3		1:1		20	
0.0987	16.5		2:1		10	
0.128	14.3		1:1		15	

Question Two

The main chemical in LPG is propane (C_3H_8), it is a fossil fuel. The burning of propane can be described by the equation below:

$$C_3H_8 + 5O_2 \rightarrow 3 CO_2 + 4 H_2O$$

Calculate the maximum mass of carbon dioxide forms when 50 g of propane is burnt under excess oxygen.

Calculate the minimum mass of oxygen gas is required to burnt 23 g of propane

Calculate the mass of propane required to produce 530 g of water