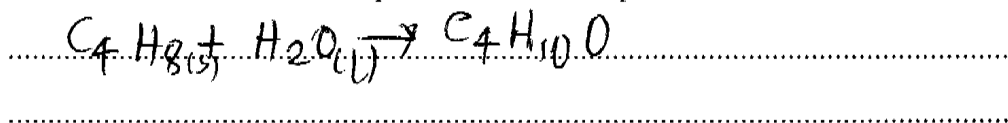


Question 23 (3 marks)

- (a) Write a balanced chemical equation for the complete combustion of 1-butanol. 1



- (b) A student measured the heat of combustion of three different fuels. The results are shown in the table. 2

Fuel	Heat of combustion (kJ g ⁻¹)
A	-48
B	-38
C	-28

The published value for the heat of combustion of 1-butanol is 2676 kJ mol⁻¹.

Which fuel from the table is likely to be 1-butanol? Justify your answer.

Fuel B is most likely to be 1-butanol is because, the heat of combustion of 1-butanol doesn't fit in with too high or too low of kJ g⁻¹. 1-butanol needs a balance Fuel like B to use the heat of combustion when it comes to calculating the experiment, when using 1-butanol as an experiment it needs a balance of kJ g⁻¹ to make the experiment go the right way.