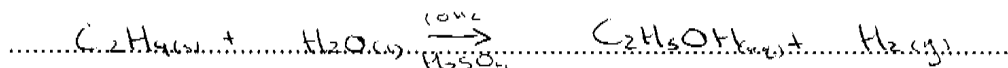


**Question 24** (4 marks)

In the margarine industry, alkenes are often hydrogenated to convert unsaturated oils into solid fats that have a greater proportion of saturated molecules.

- (a) Using ethene as an example, write an equation for this reaction and state the type of reaction this represents. 2



~~Condensation~~ reaction  
Hydration.

- (b) Describe a test that could be used to confirm that all the ethene has been converted. 2

conc.  $\text{H}_2\text{SO}_4$  if any precipitate turns black

there is still ethene there.

3/4

Sample  
2