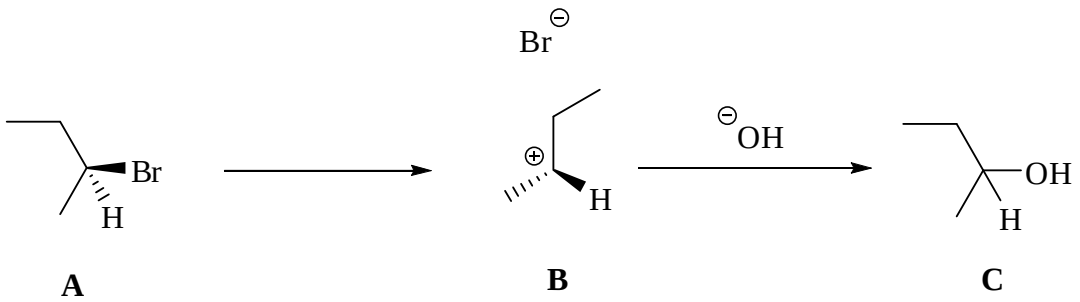
Marks 5

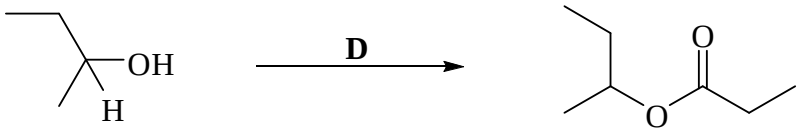
- Bromide **A** undergoes a reaction with hydroxide ions (OH^-) to produce alcohol **C**. Complete the mechanism by adding curly arrows to illustrate the bonding changes that take place in the conversion of **A** to **B** and from **B** to **C**.



A **B** **C**

What is the name of the reaction taking place when **A** is converted to **C** via carbocation intermediate **B**?

What is the stereochemical outcome of this reaction? Give reasons for your answer.



C **E**

Alcohol **C** can be further reacted with reagent **D** to generate ester **E**. Provide a structure of a suitable reagent **D** for the synthesis of ester **E** from alcohol **C**.