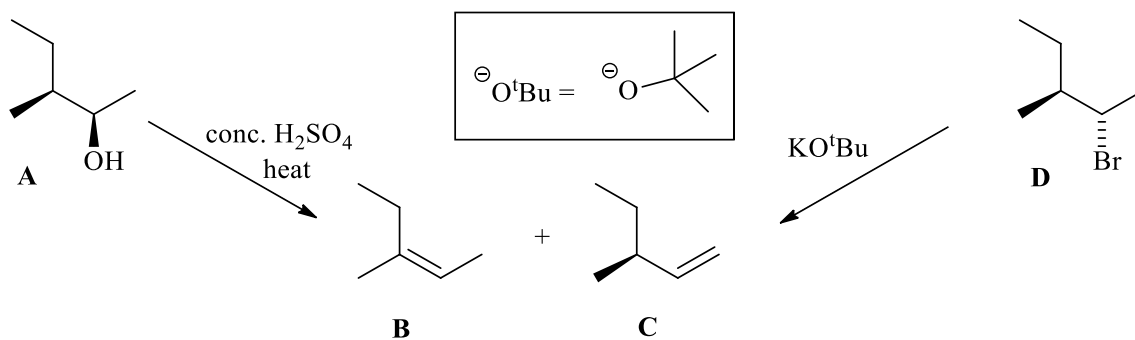
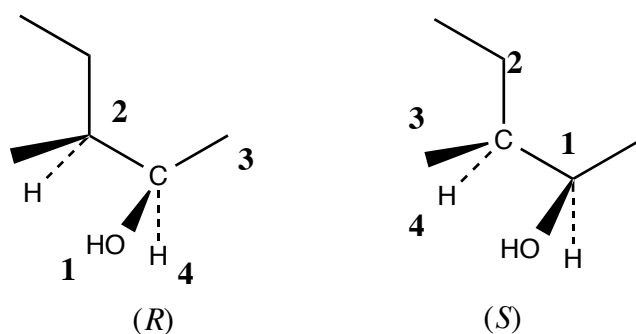


- The elimination of H_2O from alcohol **A** can form the isomeric alkenes **B** and **C**. Elimination of HBr from the alkyl halide **D** can generate the same two alkenes.

Marks
7



Assign the absolute configuration of alcohol **A**. Show your working.



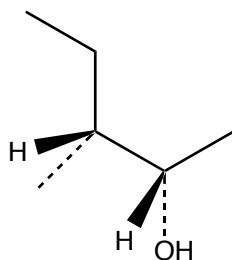
There are 2 chiral centres. On the diagram on the left, the priorities are as shown and are in an (R) configuration. On the diagram on the right, the priorities are in an (S) arrangement.

Name compound **B** fully.

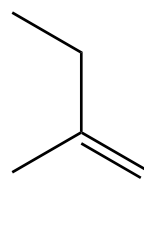
(Z)-3-methylpent-2-ene

A diastereoisomer of **B** is also formed in these reactions. Draw the enantiomer of **A** and the diastereoisomer of **B**.

enantiomer of **A**

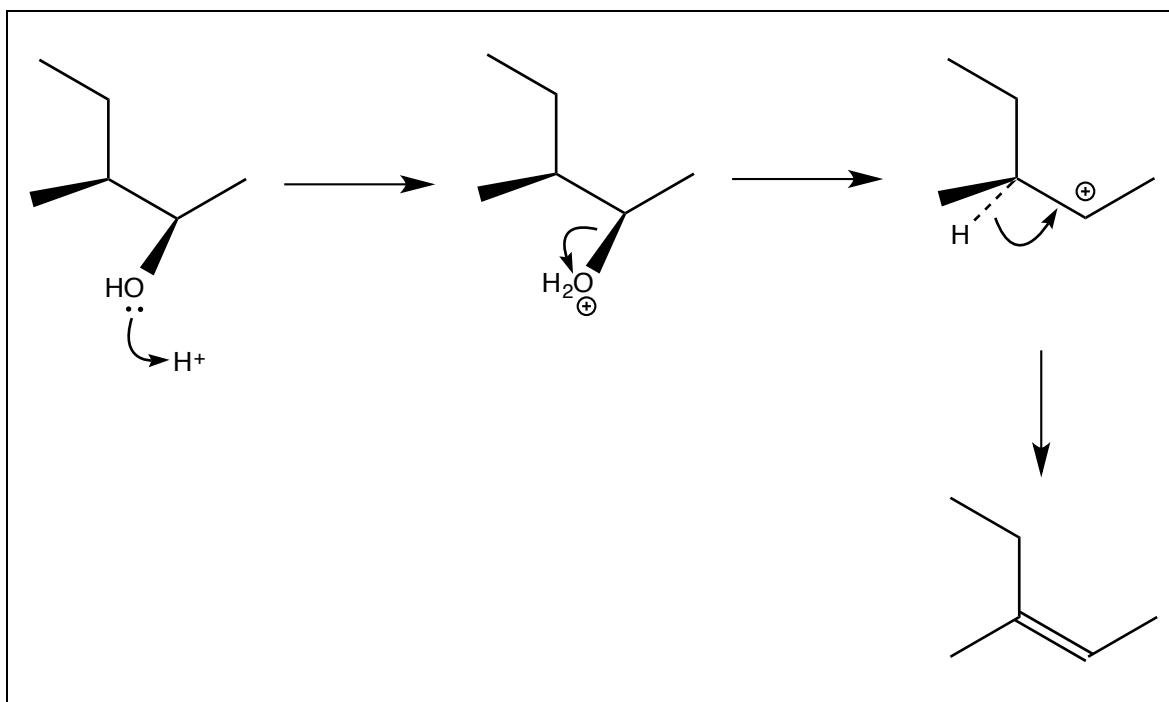


diastereoisomer of **B**



ANSWERS CONTINUES ON THE NEXT PAGE

Propose a mechanism for the formation of **B** from **A** under the conditions shown. Use curly arrows and draw the structures of any intermediates.



THIS QUESTION CONTINUES ON THE NEXT PAGE.