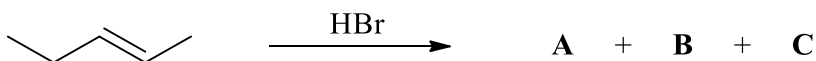


- Addition of HBr to the isomer of 2-pentene shown below gives 3 isomeric products, **A**, **B** and **C**, in an approximate ratio of 50:25:25 respectively.

**Marks**  
**8**



Draw the three products **A**, **B** and **C**.

<b>A</b>	<b>B</b>	<b>C</b>

Explain the ratio of products observed.

What is the isomeric relationship between **A** and **B**?

What is the isomeric relationship between **B** and **C**?

Assign the stereochemistry of the starting material isomer. Show your working.

Draw the other configurational isomer of 2-pentene and assign its stereochemistry.

What product(s) would you expect from the addition of HBr to this stereoisomer, and in what ratio?