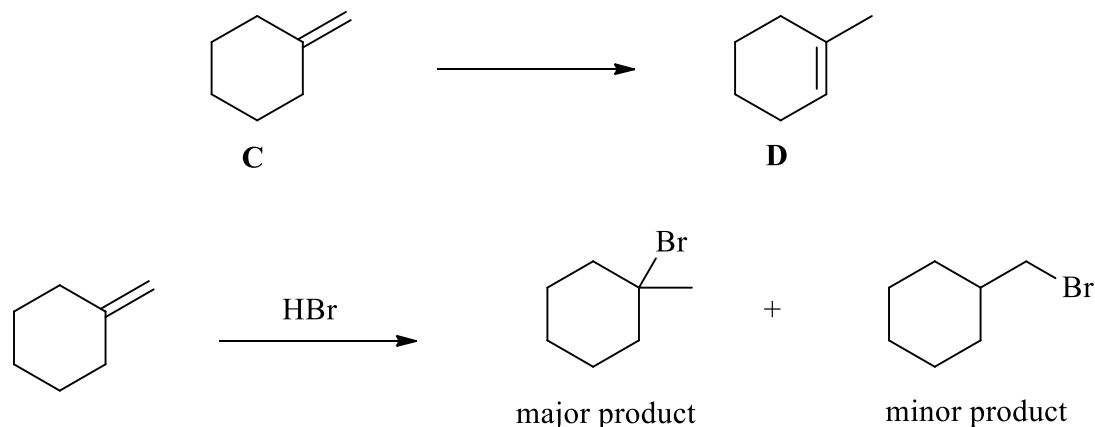
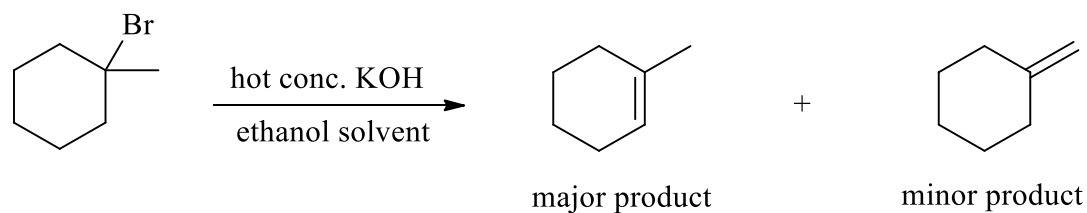


Marks
4

- Devise a way to convert alkene **C** to alkene **D** using hydrogen bromide (HBr) as one of the reagents. Provide any other reagents you might need. If any of the steps you use could form two products, explain whether there is any selectivity and why.



Electrophilic addition follows Markovnikov's rule. There are two possible intermediates, a primary and a tertiary carbocation. The tertiary is more stable so is formed preferentially.



Base catalysed elimination of HBr follows Saytzev's rule – the more highly substituted product will predominate.