

Knowledge check

Subject area: Organic chemistry

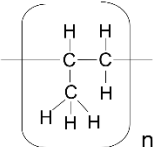
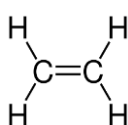
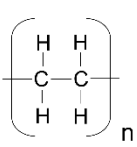
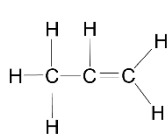
Level: 14–16 years (Higher)

Topic: Addition polymerisation

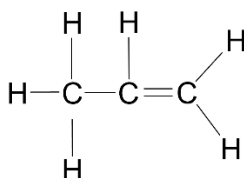
Source: rsc.li/2GRWsj

1. This question is about molecules in the table.

Complete the table.

| | | | | |
|---|---|---|--|---|
| |  |  |  |  |
| Tick if a polymer | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Name of substance | | | | |
| Unsaturated or saturated | | | | |
| Observation when orange bromine water added | | | | |

2. This question is about the molecule below.



a) Name the molecule.

- b) Draw a section of the polymer in which two repeating units are shown bonded together.

- c) What is the name of the polymer in part b)

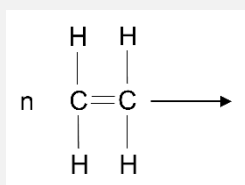
- d) Describe what happens to the carbon double bond in the molecule in part a) when it makes a polymer.

- e) What type of polymerisation occurs to make the polymer in part b)?

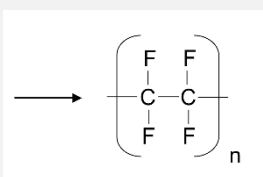
3. The equations below show monomers forming polymers.

Complete each equation by drawing the structure of the monomer or polymer in the box.

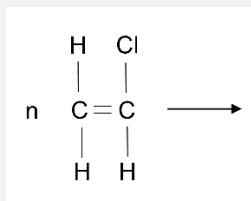
a)



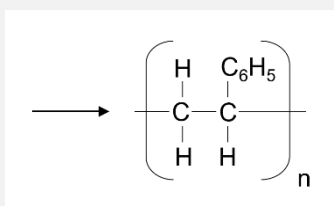
b)



c)



d)



4. Polymers are very useful, but there are problems associated with their use.

Briefly describe why each of the following is a problem.

a) The resources needed to make them.

b) Disposal in landfill sites.

c) Disposal by combustion.