Answer all the questions below then check your answers.

1. What is a polymer?

2. What are monomers and what special feature must monomers used for addition polymerisation have?

3. Describe what happens to the monomer molecules during a polymerisation reaction?

4. What monomer is used to make the following polymers:

i. poly(ethene)

ii poly(propene)

iii poly(chloroethene)

5. Draw out 3 propene monomers and show how they combine to form poly(propene)

a. Write an equation to show the addition polymerisation of :

i. propene to poly(propene)

ii. ethene to poly(ethene)

b. How is the repeating unit in poly(propene) different from the propene monomer.

Answers

1. What is a polymer? A giant molecule formed when lots of small molecules called monomers link together.

2. What are monomers and what special feature must monomers used for addition polymerisation have? Monomers are the small molecules that link together to form the polymer. For addition polymerisation the monomers need to be unsaturated, that is contain a C=C.

3. Describe what happens to the monomer molecules during a polymerisation reaction? The C=C double bond is split to form a molecule where each carbon atom only makes 3 bonds, these molecules then link together to form the polymer chain.

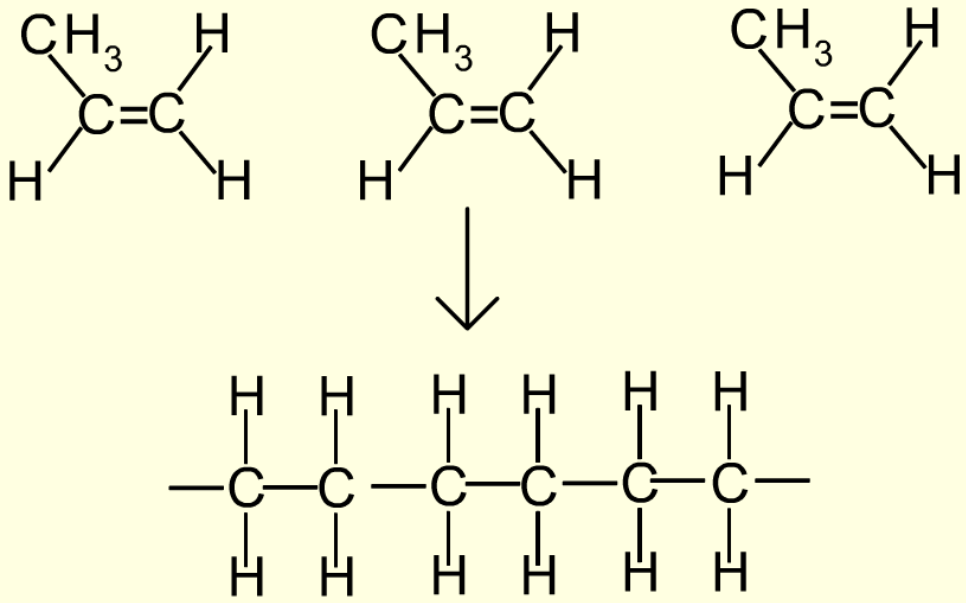
4. What monomer is used to make the following polymers:

i. poly(ethene) ethene

ii poly(propene) propene

iii poly(chloroethene) chloroethene

5. Draw out 3 propene monomers and show how they combine to form poly(propene)



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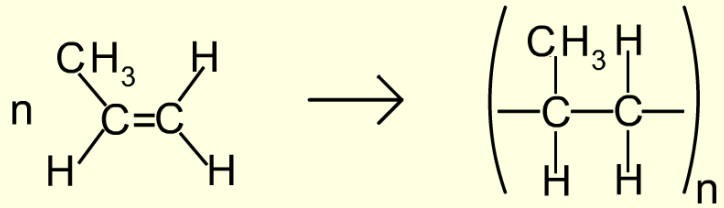

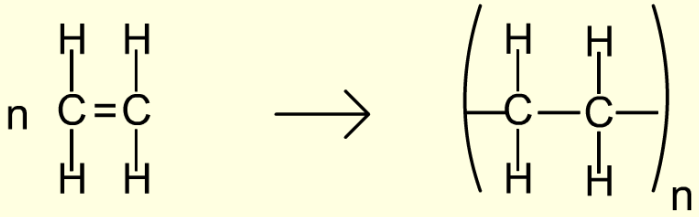

b. How is the repeating unit in poly(propene) different from the propene monomer.

Repeating unit has no C=C present