

Name Key

Introduction to Organic Chemistry

1. What is organic chemistry?

Study of carbon compounds

2. What is a hydrocarbon? Give an example of a hydrocarbon.

Hydrocarbon is a compound composed of carbon and hydrogen.

Methane, ethane, propane, butane, etc.

3. Why are organic molecules normally shown with a structural formula rather than a molecular formula?

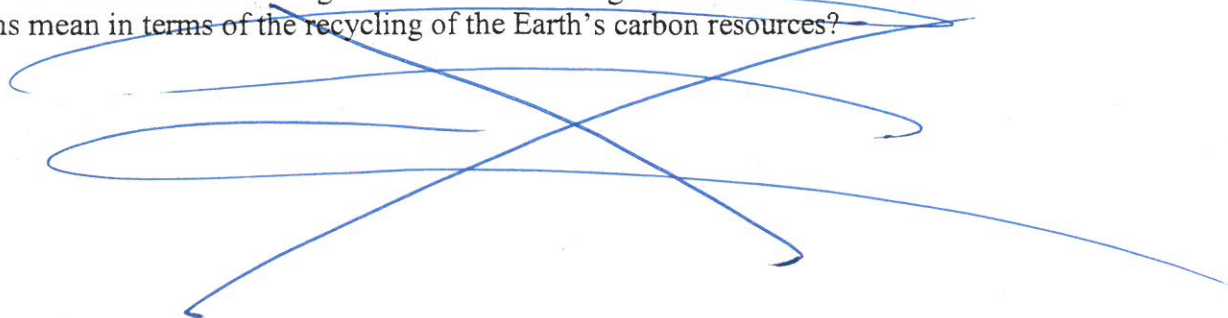
Structural isomers exist which are compounds that have the same ~~molecular~~ molecular formulas but different structural formulas.

4. What is a polymer? What are the building blocks or individual units of a polymer called? Give a common example of a polymer.

Polymer is an organic compound made up of repeating units called monomers.

polyethylene, polystyrene, DNA, nylon, proteins, etc.

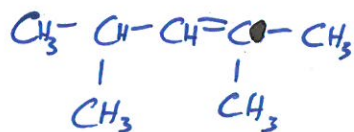
5. What do the words biodegradable and nonbiodegradable mean and what do these terms mean in terms of the recycling of the Earth's carbon resources?



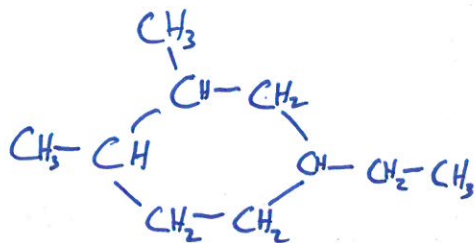
Name _____

8. Draw the structure of the following compounds.

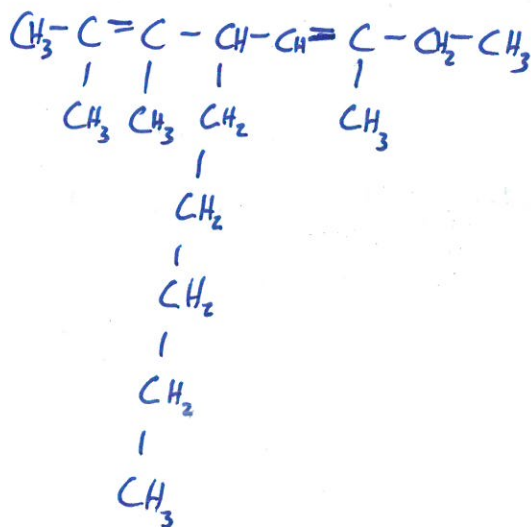
a. 2,4 dimethyl 3 pentene



b. 1,2 dimethyl 4 ethyl cyclohexane



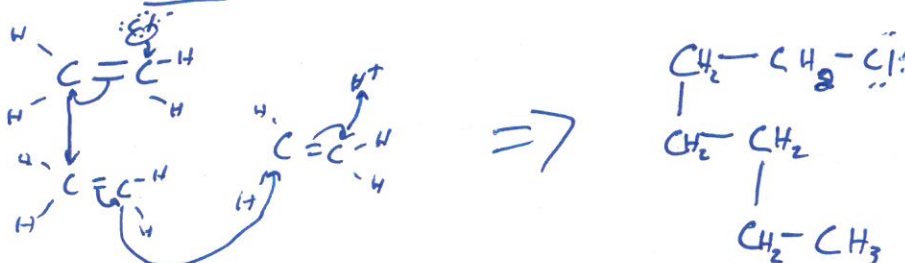
c. 2,3,6, trimethyl 4 pentyl octa-2,5-diene



6. Describe the process of addition polymerization. Give examples if necessary.

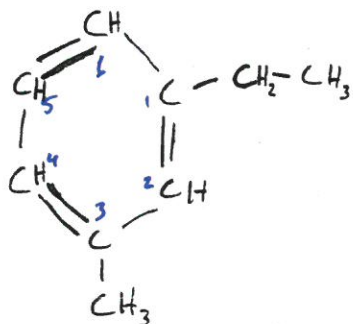
Show an example of the reaction using ethene as the monomer.

Addition polymerization is fast paced addition of monomers that are alkenes.



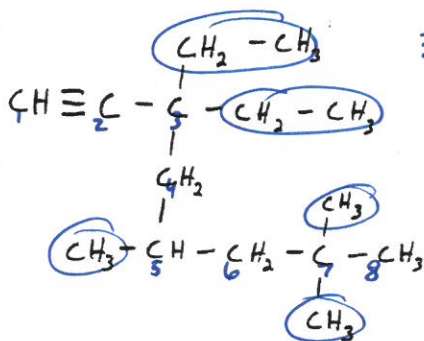
7. Name the following compounds.

a.



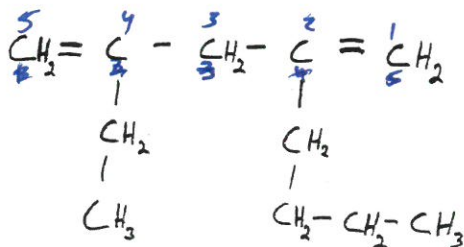
1 ethyl 3 methyl 1,3,5 cyclohexatriene

b.



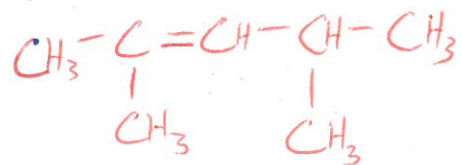
3,3 diethyl 5,7,7 trimethyl 1 octyne

c.

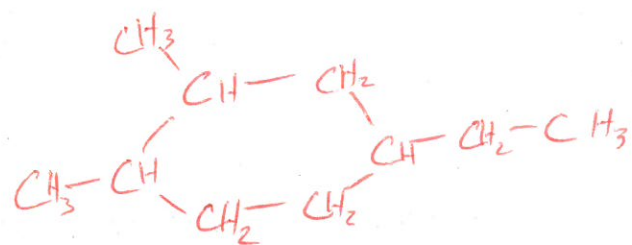


2 butyl 4 ethyl 1,4 pentadiene

7a.) 2,4 dimethyl 2 pentene



b.) 1,2 dimethyl 4 ethyl cyclohexane



c.) 2,3,6 trimethyl 4 pentyl octa -2,5-diene

