Practicing Hydrocarbons
cycloalkenes

Alkenes

The general formula for the alkenes is

$$C_nH_{2n+2}$$

n stands for any number

Alkenes are commonly used in fuels
Alkenes are insoluble in water.

Alkenes

The general formula for the alkenes is

$$C_nH_{2n}$$

Their functional group is the carbon to carbon double bond

$$C=C$$

Alkenes are used to make polymers and alcohol

Alkenes are insoluble in water

Cyclo alkenes

The general formula for the cycloalkene is

$$C_nH_{2n}$$

This is the same as the alkenes

Cycloalkenes are commonly used as fuel and solvents

Cycloalkenes are insoluble in water.

Homologous Series

A family of compounds with

the same general formula

Similar chemical properties

like solubility, reactivity, flammability

A gradual change in physical properties

melting / boiling point, colour, smell

Alkanes, Alkenes, cycloalkanes are all examples

Video question 1

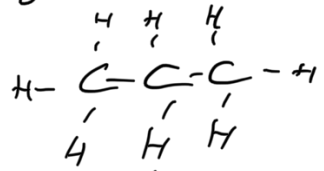
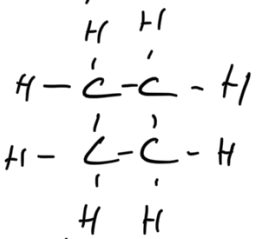
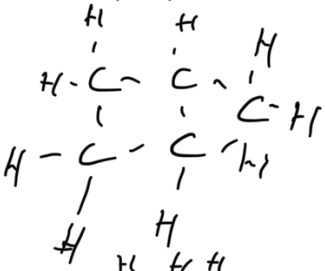
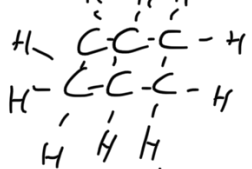
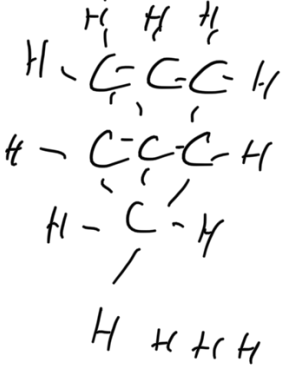
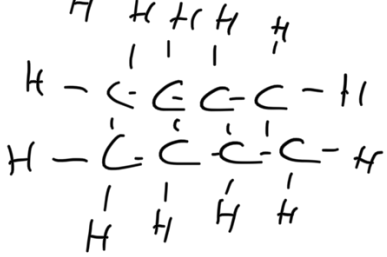
D. It is cyclobutene

E. It is an Alkene

Video question 2

E. octene

Cyclopentene.

carbons	name	full structural formula	shortened formula	shortened formula
3	Propane		C_3H_8	$CH_2CH_2CH_2$
4	cyclo Butane		C_4H_8	$CH_2CH_2CH_2CH_2$
5	cyclo pentane		C_5H_9	$CH_2CH_2CH_2CH_2CH_2$
6	cyclo hexane		C_6H_{10}	$CH_2CH_2CH_2CH_2CH_2CH_2$
7	cyclo heptane		C_7H_{14}	$CH_2CH_2CH_2CH_2CH_2CH_2CH_2$
8	cyclo octane		C_8H_{12}	$CH_2CH_2CH_2CH_2$

Q 1. a) carbon hydrogen

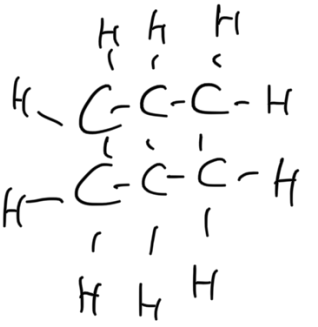
b) H +

f) Heptene
Octene
Acetylen
Natural gas

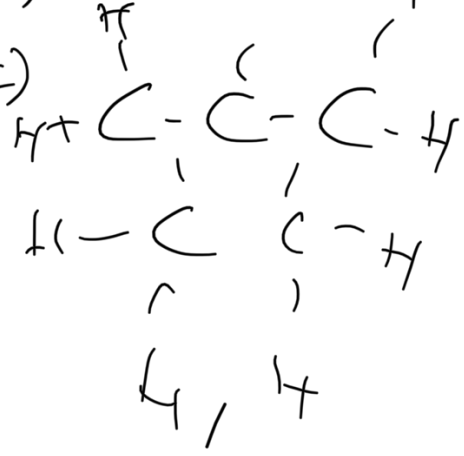
Q2. a) Butene d) cyclobutane
b) Benzene e) Pentene
c) Heptene f) Hexene

Q3. a) $CH_3CH_3CH_3$ c) $CH_3CH_2CH_2CH_2$
b) CH_3CH_3 d) CH_2CH_2H

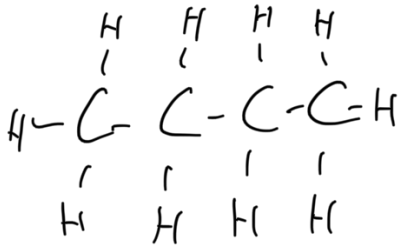
Q4. a)



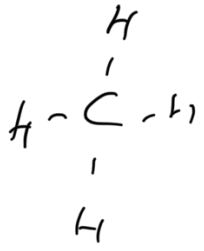
c)



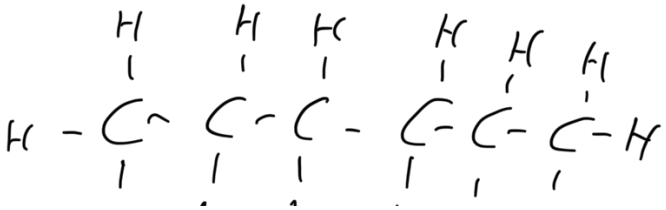
b)



d)



e)



H H H H H H

5. A homologous Series is a group of compounds that have similar chemical properties.

6. Ethane Butane Methane Octane

C_3H_8 CH_4 CH_4 C_4H_8

7. A & D