

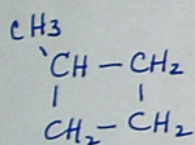
- a 1. atom or group of atoms that can take the place of a hydrogen in a parent hydrocarbon molecule
- b 2. compounds that have the same molecular formula, but different structures
- e 3. group of carbon and hydrogen atoms derived from an alkane molecule by removing one hydrogen atom
- f 4. formula showing all the atoms and bonds in a molecule
- c 5. structural formula in which some bonds and/or atoms are left out
- h 6. any hydrocarbon compound in which a ring has bonding similar to benzene
- d 7. organic compound that contains the maximum number of hydrogens per carbon atom
- g 8. organic compound that contains at least one double or triple carbon-carbon bond
- i 9. any straight-chain or branched-chain alkane, alkene, or alkyne
- j 10. The separation of a substance into various parts according to boiling points

Part B

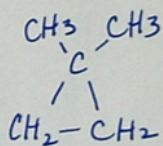
1. Carbon = 4
 Hydrogen = 1
 Oxygen = 2
 halogens = 1

2. Cyclohexane: C_6H_{12}
 Benzene C_6H_6
 6 more H's

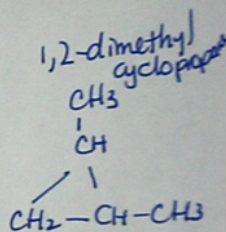
3. $CH_2=CH-CH_2-CH_2-CH_3$ 1-pentene
 $CH_3-CH=CH-CH_2-CH_3$ 2-pentene
 $CH_2=C(CH_3)-CH_2-CH_3$ 2-methyl-1-butene
 $CH_2=CH-CH(CH_3)-CH_3$ 3-methyl-1-butene
 $CH_3-C(CH_3)=CH-CH_3$ 2-methyl-2-butene

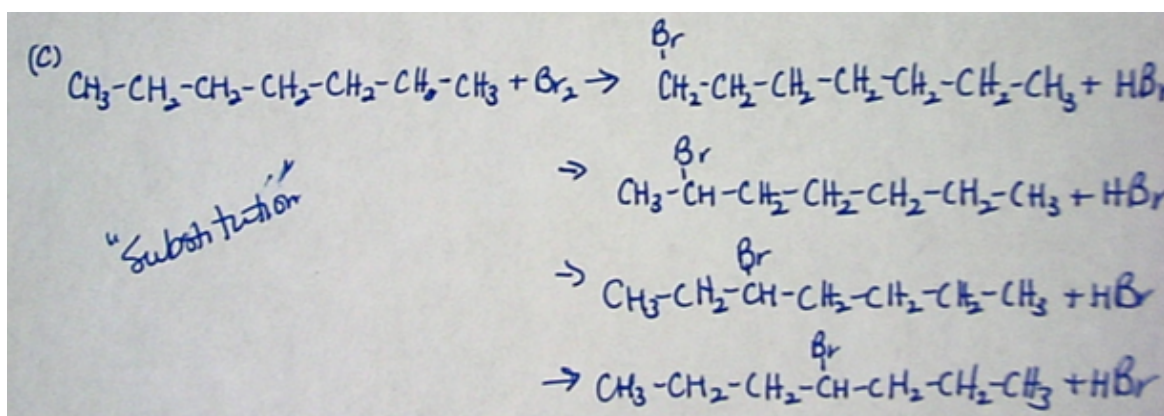
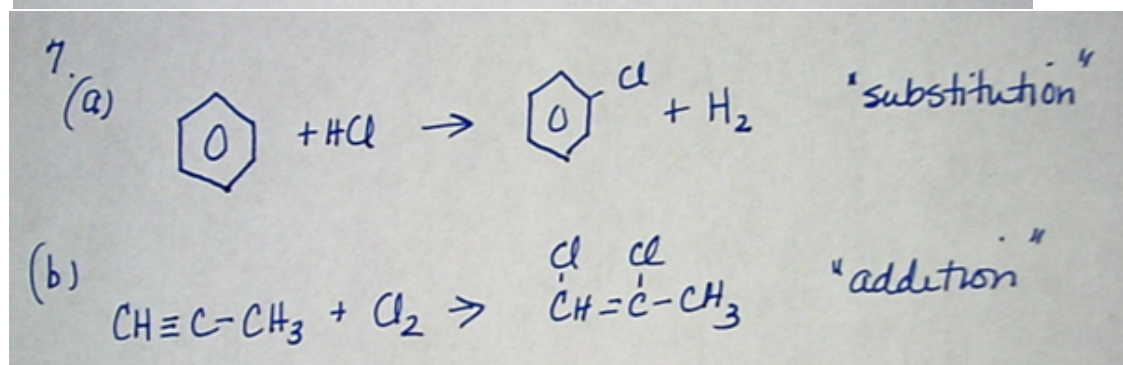
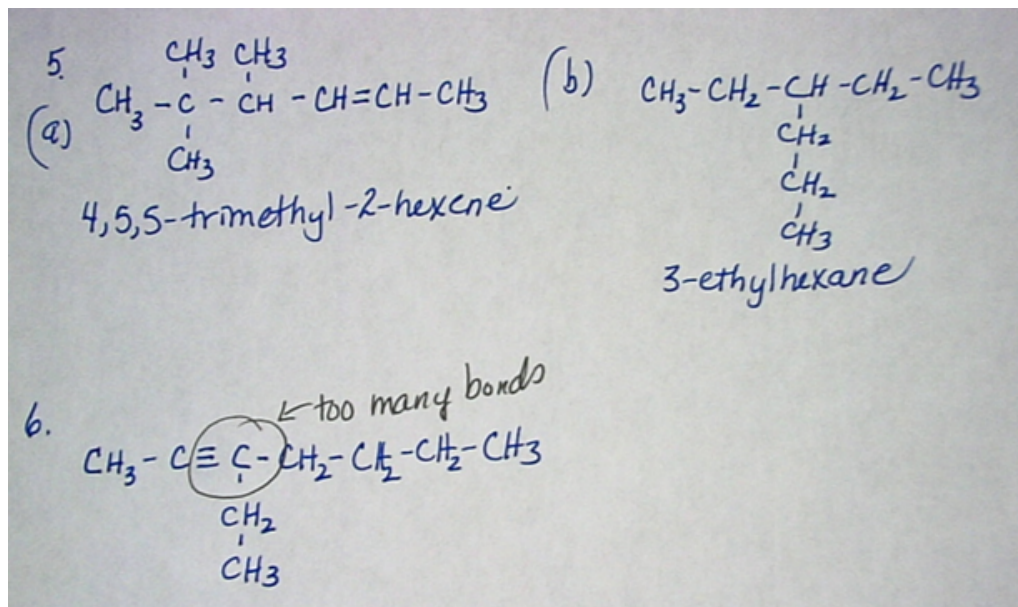


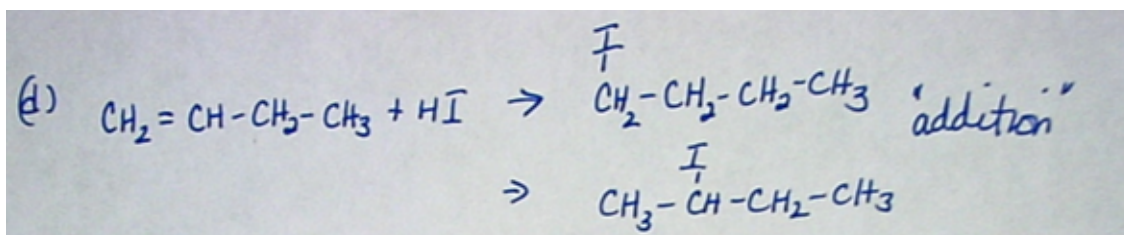
1-methylcyclobutane



1,1-dimethylcyclopropane



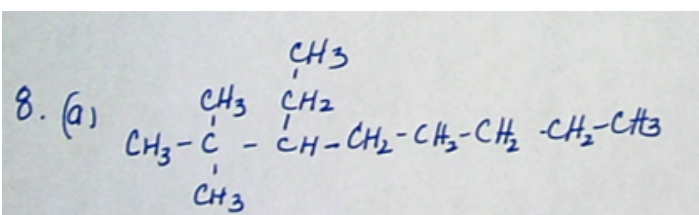




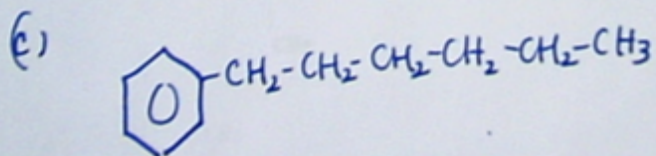
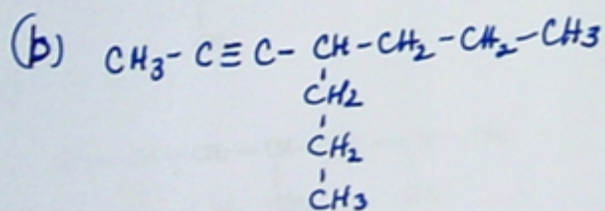
7. e) the complete burning of 3,3-diethyl-4-methyl-1-heptyne

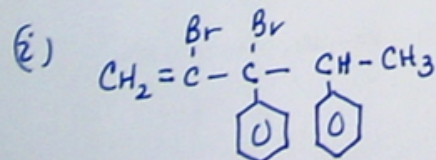
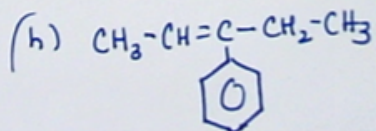
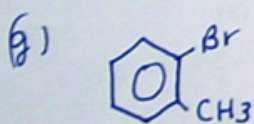
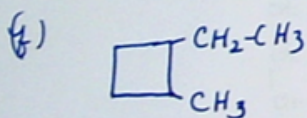
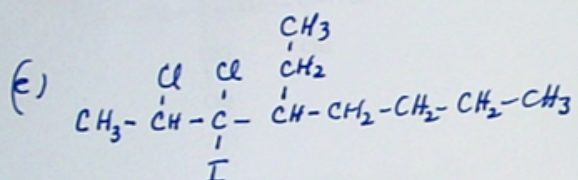
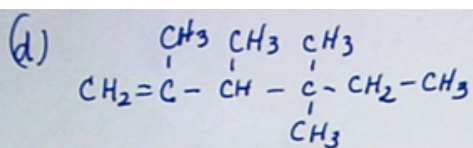


f) omit- we didn't do this year

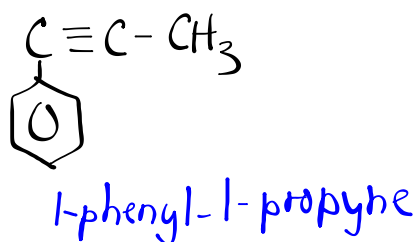
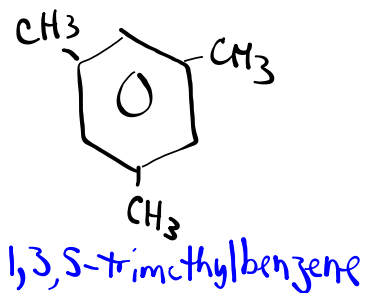
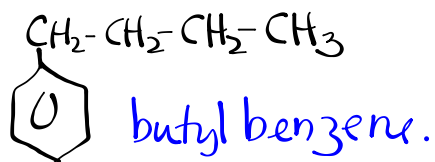
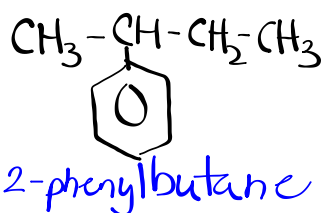
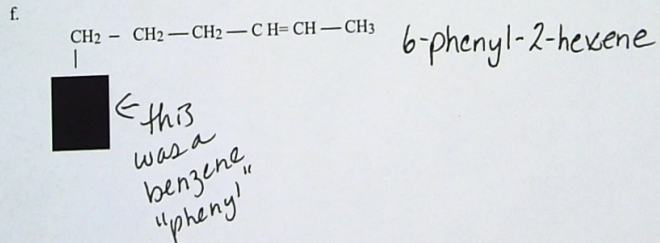
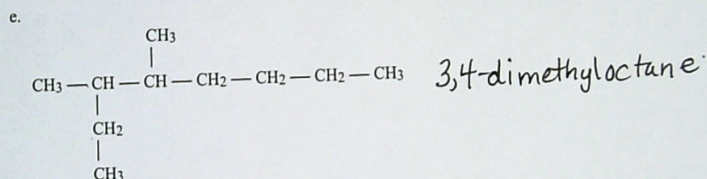
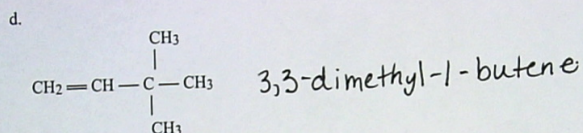
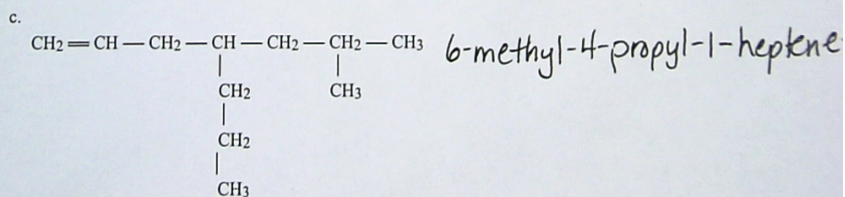
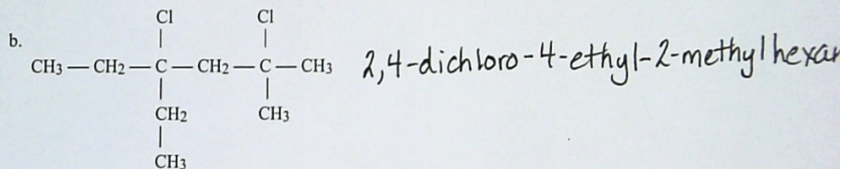
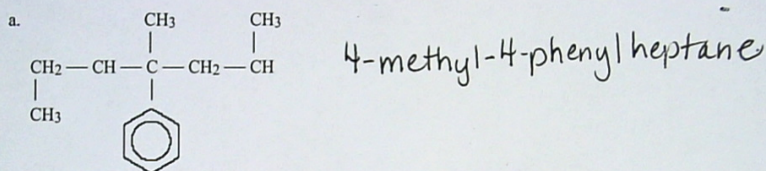


8 b) 4-propyl-2-heptyne

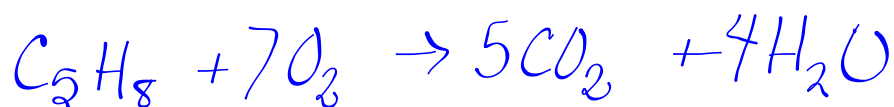




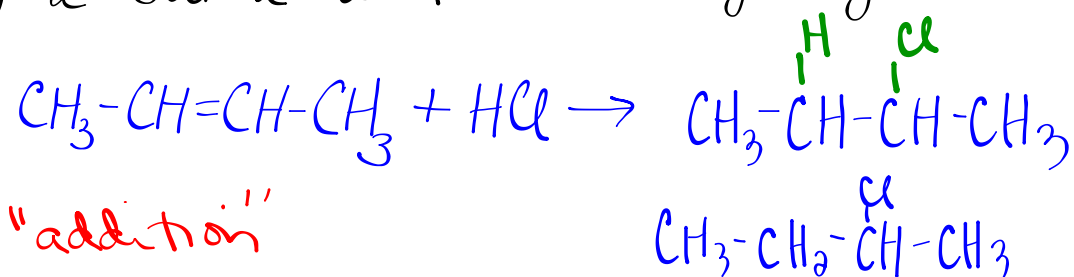
9. Write the English IUPAC name for this formula.



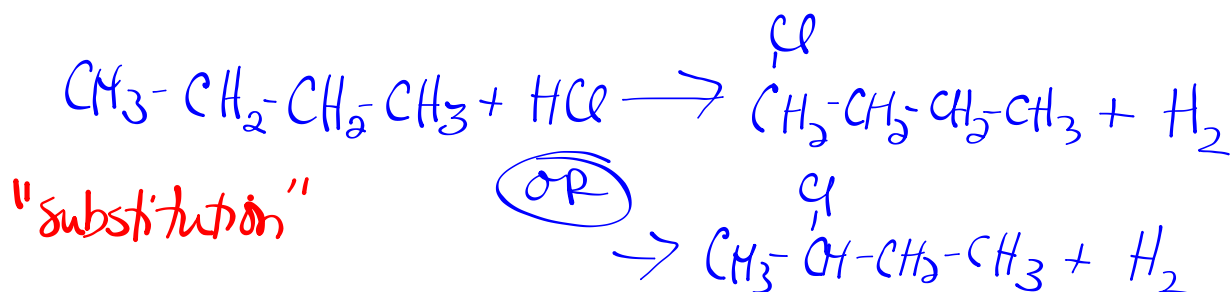
Burning
 (a) Combustion of 3-methyl-1-butyne



(b) 2-butene reacts with hydrogen chloride



(c) butane reacts with hydrogen chloride



(d) 1-hexyne reacts with HBr

