

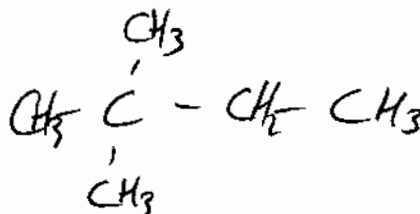
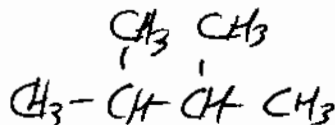
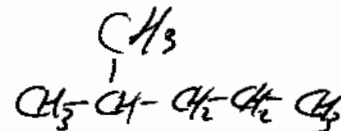
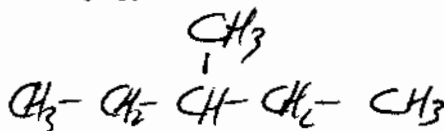
Name

RAPP

Study Guide I: Alkanes, Cycloalkanes, Alkyl Halides, Isomers, Lewis Structures

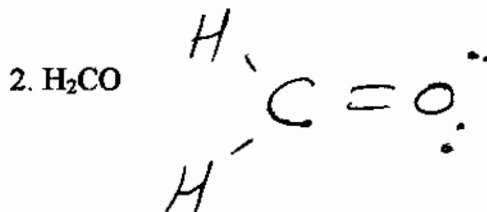
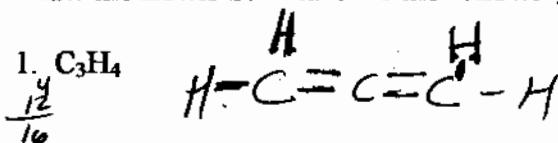
Isomers

Draw all the possible structural isomers of C_6H_{14} .



Lewis Structures

Draw the Lewis Structure for the following:

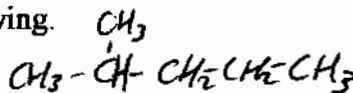


Nomenclature

Write structural formulas for each of the following.

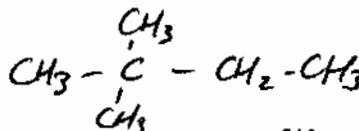
1. 2-methylpentane

①



2. 2,2-dimethylbutane

②



3. 4-ethyl-2,2-dimethylhexane

4. 3-bromo-2-methylpentane

5. 1,1-dichlorocyclopropane

6. 2-iodopropane

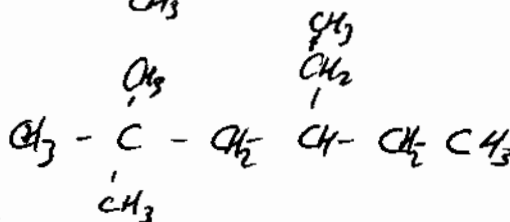
7. 1,1,4-trimethylcyclohexane

③

8. 1,1,3,3-tetrachloropropane

9. isopentylcyclohexane

10. 4-isopropyloctane



For each of the following, write a structural formula and give the proper IUPAC name for the substance. If the name is correct, write "correct".

11. 1-methylbutane

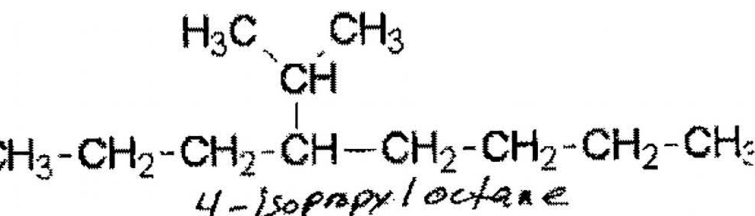
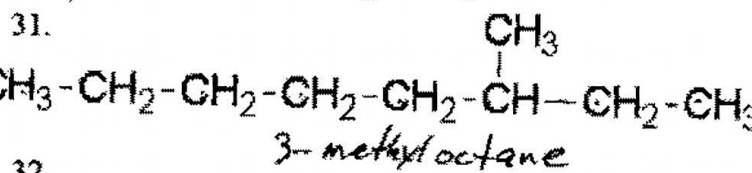
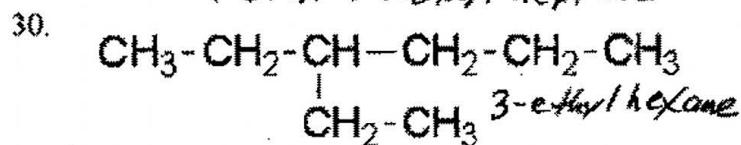
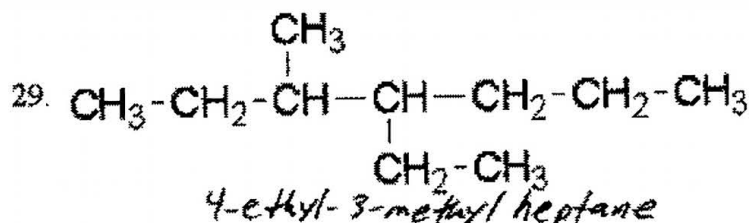
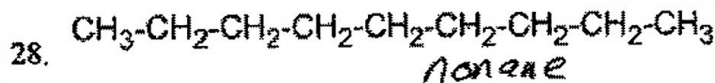
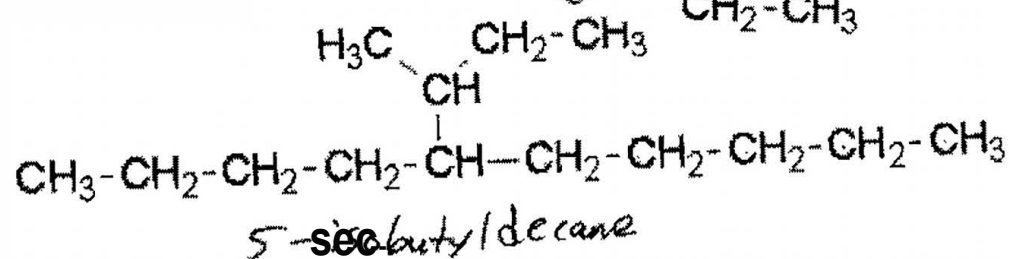
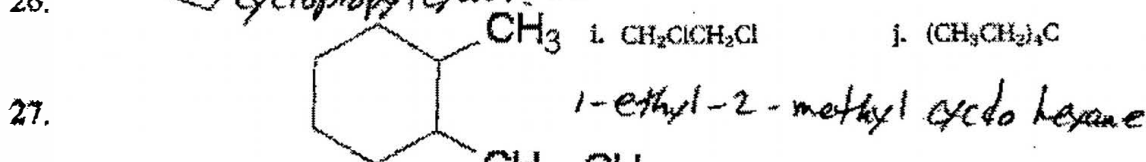
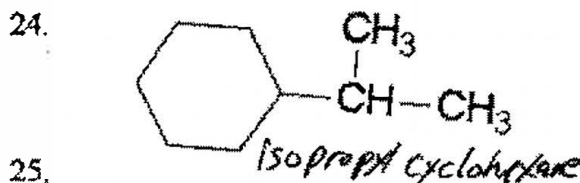
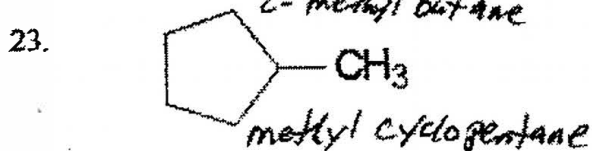
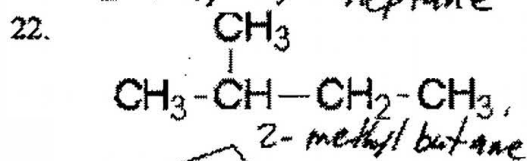
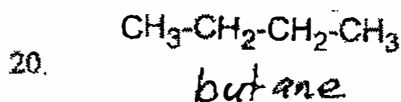
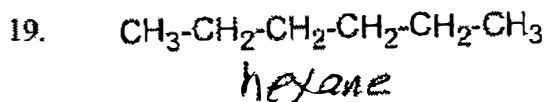
12. 2-ethylbutane

13. 2,3-dibromopropane

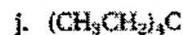
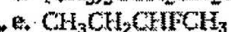
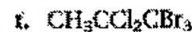
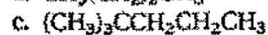
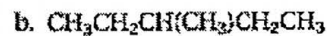
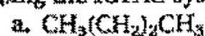
14. 1,3-dimethylcyclopropane

15. 4-chloro-3-methylbutane
16. 1,1,3-trimethylpentane
17. 4-bromo-1-methylcyclohexane
18. 4-chloro-2-iodopentane

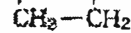
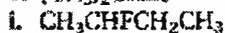
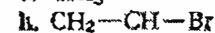
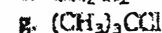
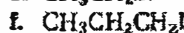
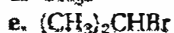
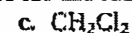
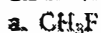
Name the following, using IUPAC nomenclature rules.



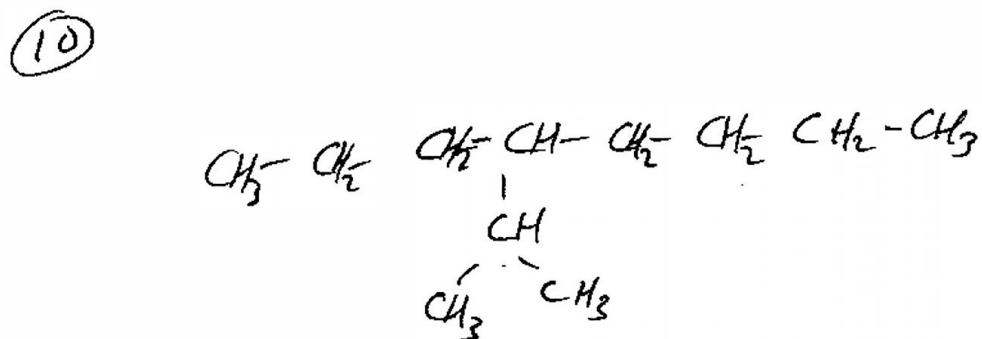
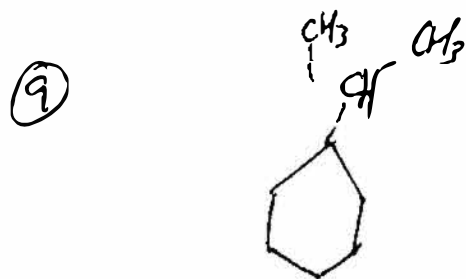
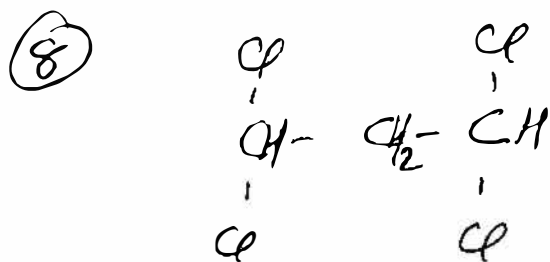
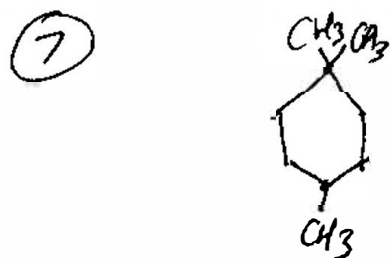
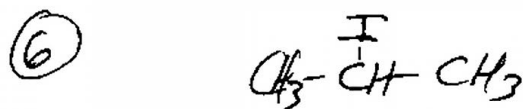
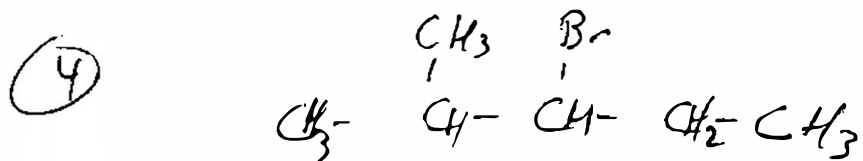
2.27. Write expanded formulas for the following compounds, and name using the IUPAC system:



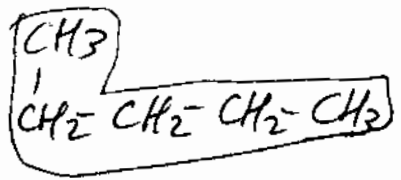
2.28. Give IUPAC names for the following compounds:



Nomenclature, cont'd — structural formulas

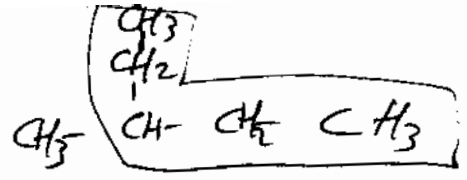


11



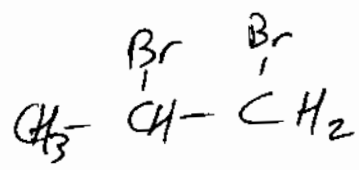
pentane

12



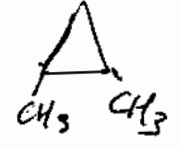
3-methyl pentane

13



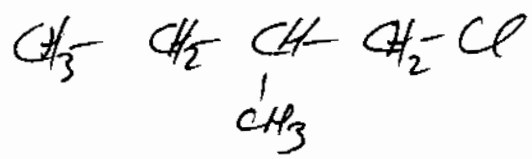
1,2-dibromo propane

14



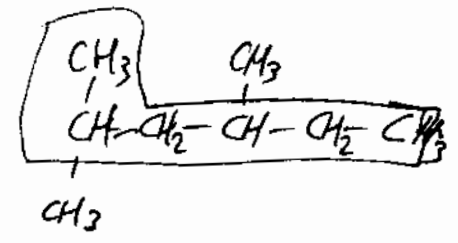
1,2-dimethyl cyclopropane

15



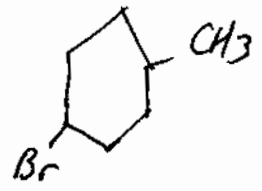
1-chloro-2-methyl butane

16



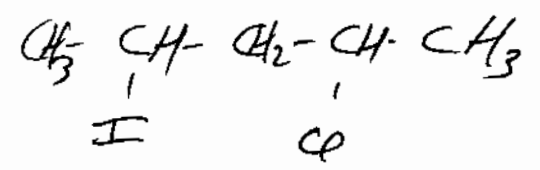
2,4-dimethyl hexane

17



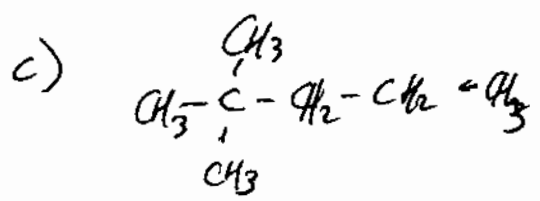
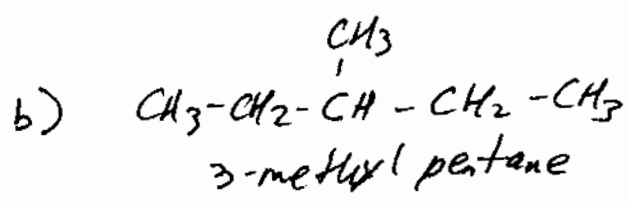
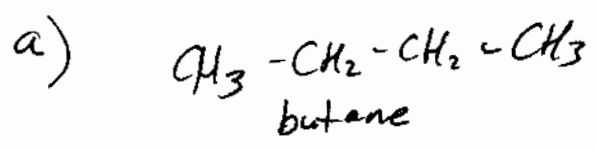
1-bromo-4-methyl cyclohexane

18

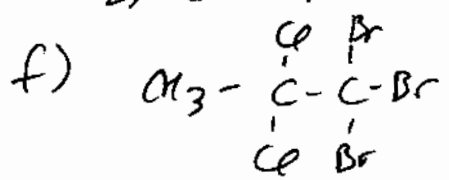
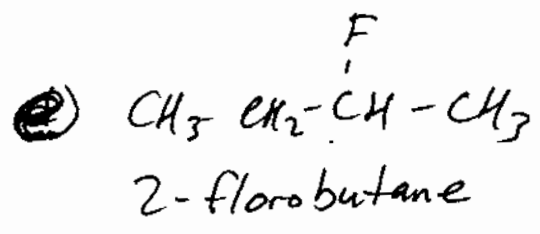


2-chloro-4-iodopentane

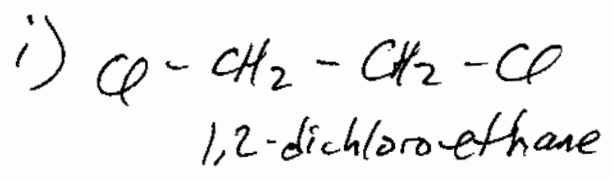
2.27

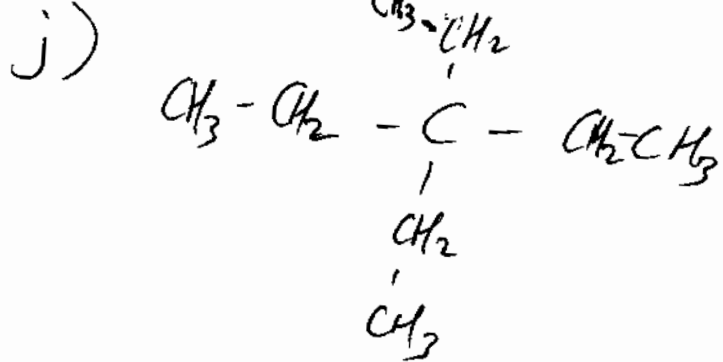


2,2-dimethyl pentane



1,1,1-tribromo-2,2-dichloropropane





3,3-diethylpentane

2.28

- a) 1-fluoromethane (or fluoromethane)
- b) 1-bromoethane (or bromoethane)
- c) 1,1-dichloromethane (or dichloromethane)
- d) triiodomethane
(or 1,1,1-triiodomethane)
- e) 2-bromopropane
- f) 1-iodopropane
- g)
- $$\begin{array}{c}
 \text{CH}_3 \\
 | \\
 \text{CH}_3-\text{C}-\text{Cl} \\
 | \\
 \text{CH}_3
 \end{array}$$
- 2-chloro-2-methylpropane
- h) bromocyclobutane
- i) 2-fluorobutane