

Name _____

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:

1. C_3H_4

2. H_2CO

Nomenclature

Write structural formulas for each of the following.

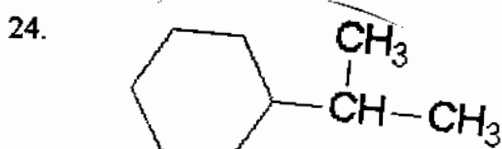
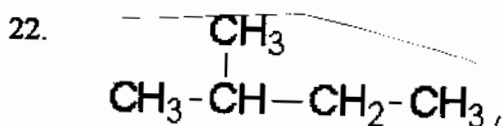
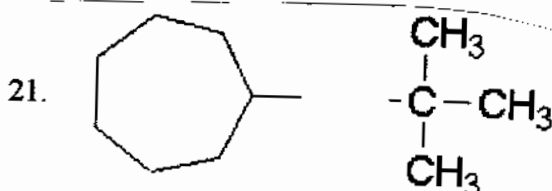
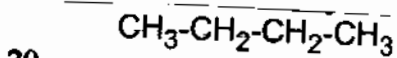
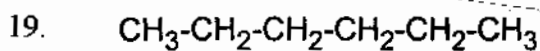
1. 2-methylpentane
2. 2,2-dimethylbutane
3. 4-ethyl-2,2-dimethylhexane
4. 3-bromo-2-methylpentane
5. 1,1-dichlorocyclopropane
6. 2-iodopropane
7. 1,1,4-trimethylcyclohexane
8. 1,1,3,3-tetrachloropropane
9. isopentylcyclohexane
10. 4-isopropyloctane

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".

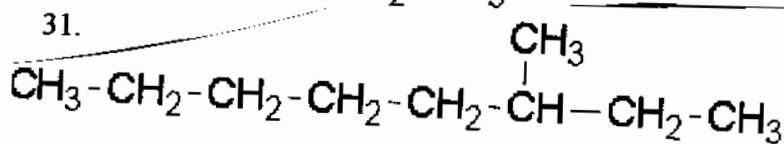
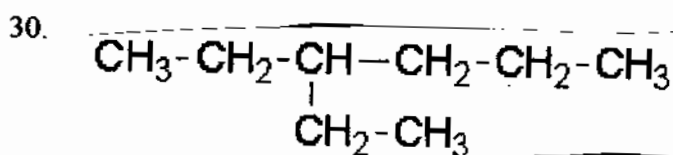
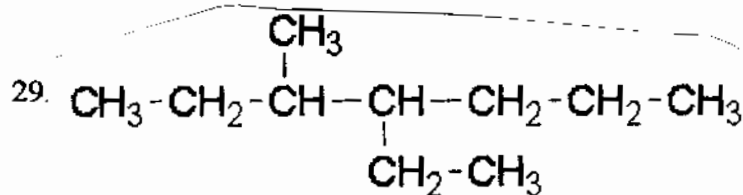
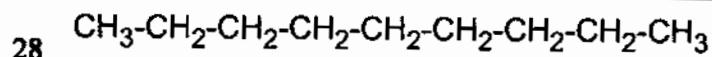
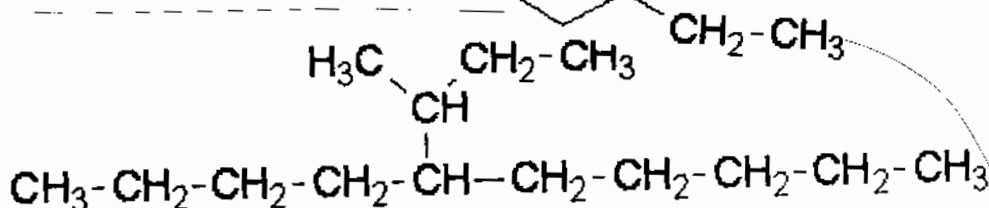
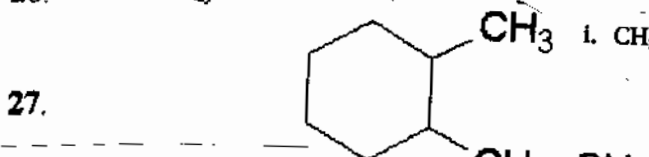
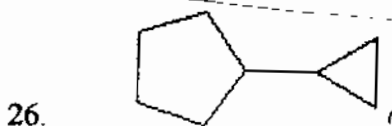
11. 1-methylbutane
12. 2-ethylbutane
13. 2,3-dibromopropane
14. 1,3-dimethylcyclopropane

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

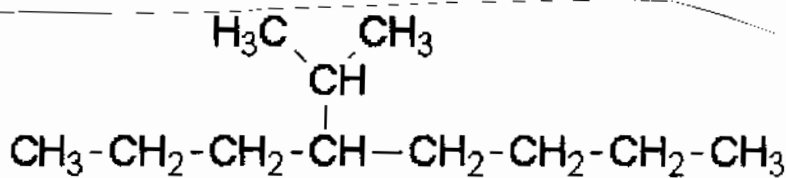
Name the following, using IUPAC nomenclature rules.



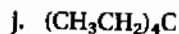
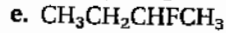
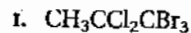
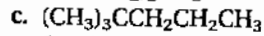
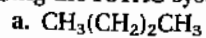
25.



32.



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



2.28. Give the IUPAC names for the following compounds:

