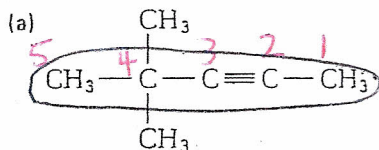
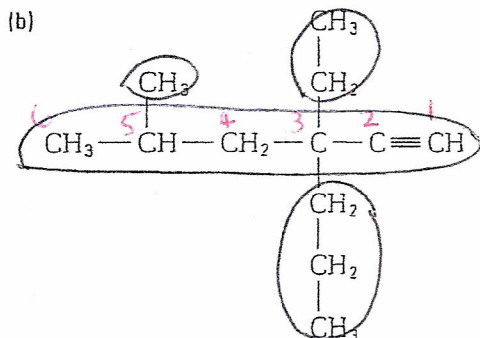


Practice Problems

15. Name each alkyne.



4,4-dimethyl-2-pentyne



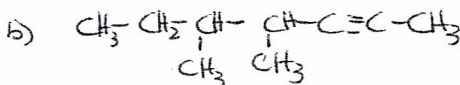
3-ethyl-5-methyl-3-propyl-1-hexyne

16. Draw a condensed structural diagram for each compound.

(a) 2-pentyne

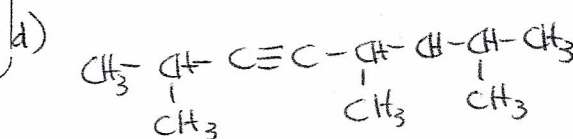
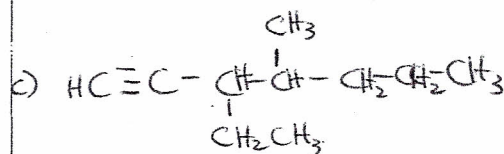


(b) 4,5-dimethyl-2-heptyne



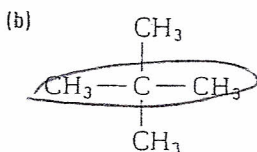
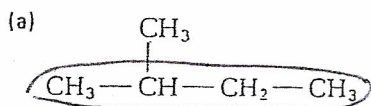
(c) 3-ethyl-4-methyl-1-hexyne

(d) 2,5,7-trimethyl-3-octyne



Practice Problems

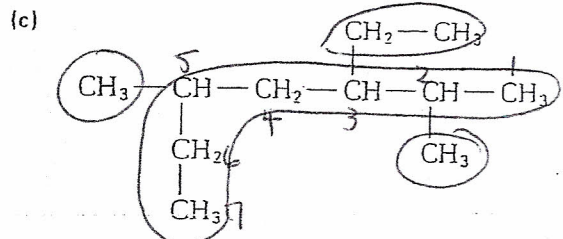
5. Name each compound.



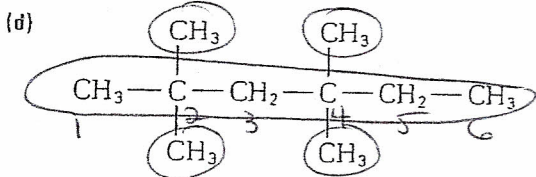
2,2-dimethylpropane

2-methylbutane

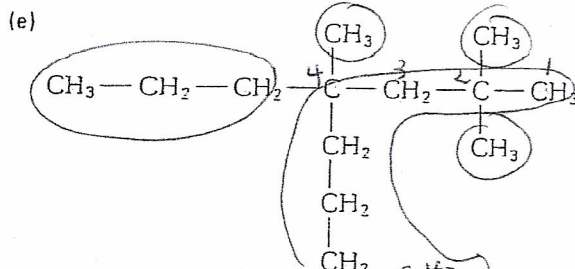
FROM PAGE 549



3-ethyl-2,5-dimethylheptane



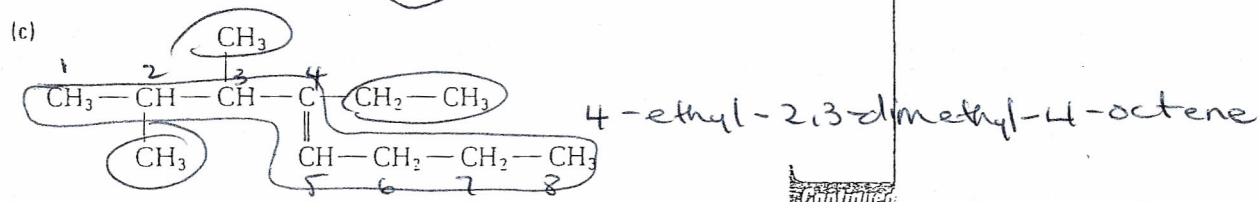
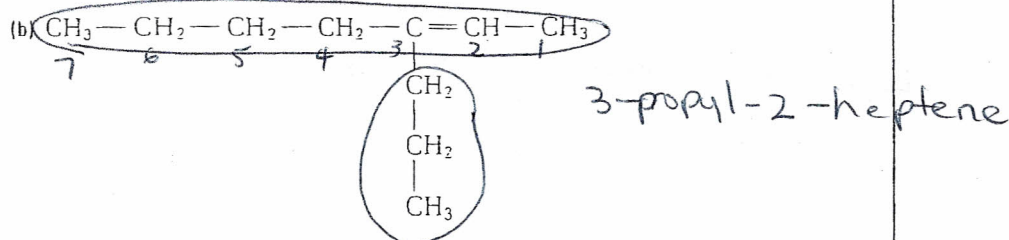
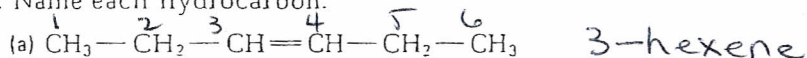
2,2,4,4-tetramethylhexane



2,2,4-trimethyl-4-propyloctane

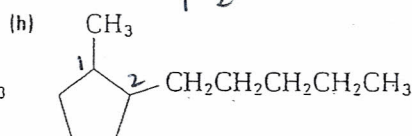
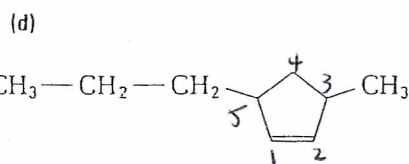
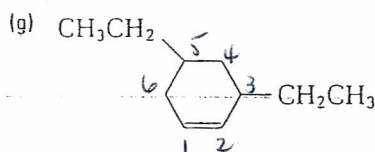
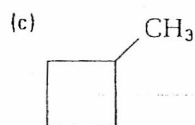
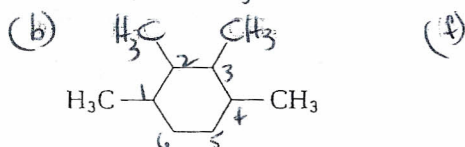
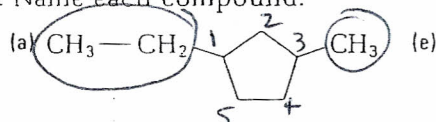
Practice Problems

8. Name each hydrocarbon.



Practice Problems

17. Name each compound.



18. Draw a condensed structural diagram for each compound.

(a) 1,2,4-trimethylcycloheptane

(e) 1,3-ethyl-2-methylcyclopentane

(b) 2-ethyl-3-propyl-1-cyclobutene

(f) 4-butyl-3-methyl-1-cyclohexene

(c) 3-methyl-2-cyclopentene

(g) 1,1-dimethylcyclopentane

(d) cyclopentene

(h) 1,2,3,4,5,6-hexamethylcyclohexane

a) 1-ethyl-3-methylcyclopentane

b) 1,2,3,4-tetramethylcyclohexane

c) methylcyclobutane

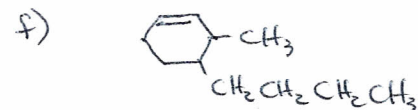
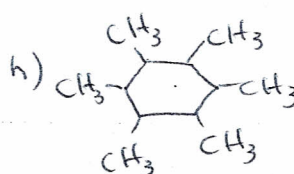
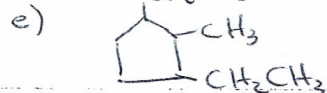
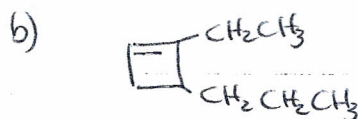
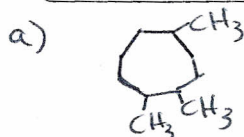
d) 3-methyl-5-propyl-1-cyclopentene

e) 3-methyl-1-cyclooctene

f) 5-ethyl-3,4-dimethyl-1-cyclononene

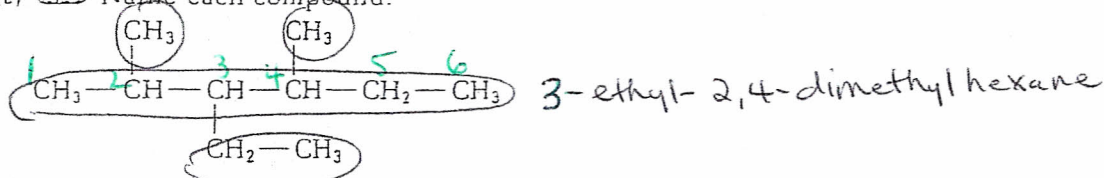
g) 3,5-diethyl-1-cyclohexene

h) 1-methyl-2-pentylcyclopentane

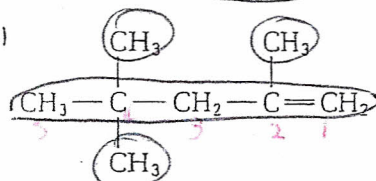


error in numbers

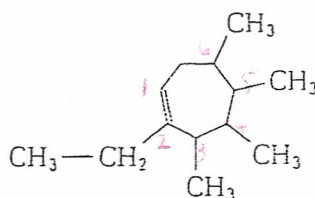
1 (a) Name each compound.



(b)

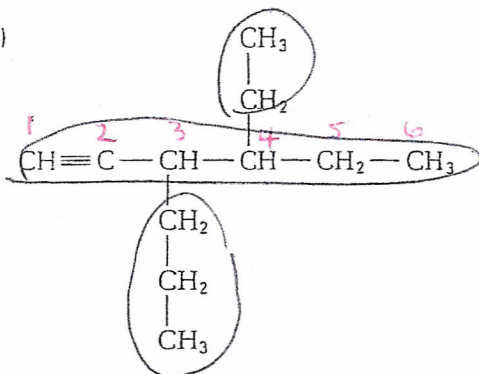


(d)



2-ethyl-3,4,5,6-tetramethyl-1-cyclohexene

(c)



4-ethyl-3-propyl-1-hexyne

2 Draw a condensed structural diagram for each compound.

(a) 2,4-dimethyl-3-hexene

(b) 5-ethyl-4-propyl-2-heptyne

(c) 3,5-diethyl-2,4,7,8-tetramethyl-5-propyldecane

(d) trans-4-methyl-3-heptene

3 Draw and name all the isomers that are represented by each molecular formula.

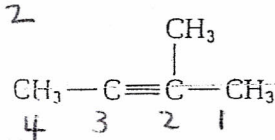
(a) C_3H_4

(b) C_5H_{12}

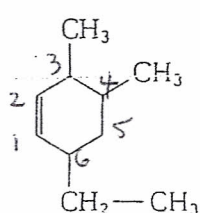
(c) C_5H_{10}

4 Identify any mistakes in the name and/or structure of each compound.

(a) 2-methyl-2-butene



(b) 2-ethyl-4,5-methyl-1-hexene



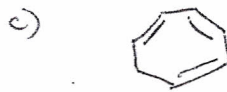
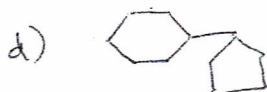
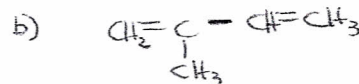
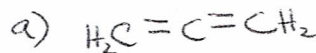
5 What happens when there is more than one double bond or more than one ring? Try to draw a condensed structural diagram for each of the following compounds.

(a) propadiene

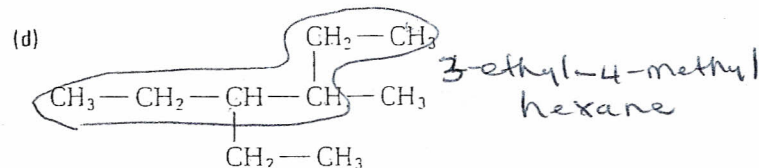
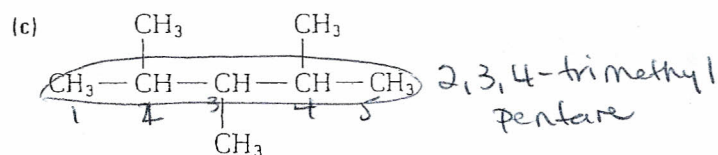
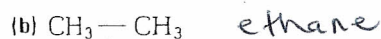
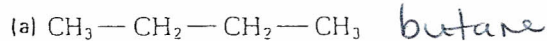
(b) 2-methyl-1,3-butadiene

(c) 1,3,5-cycloheptatriene

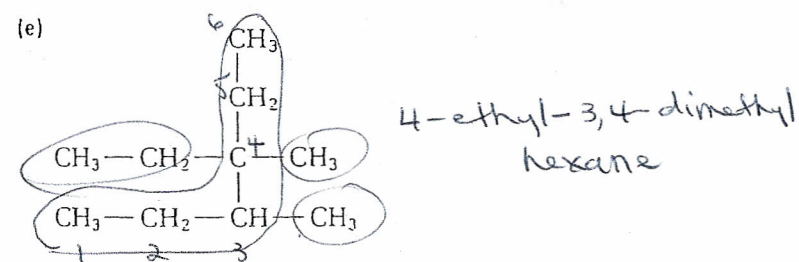
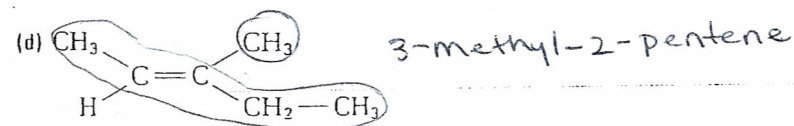
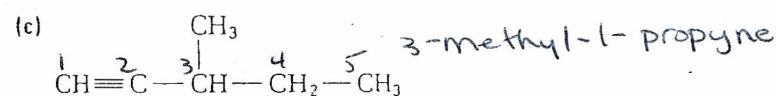
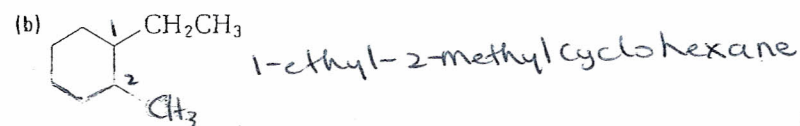
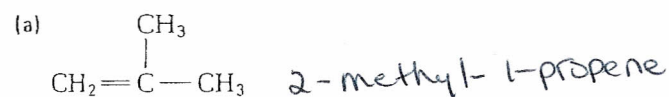
(d) cyclopentylcyclohexane



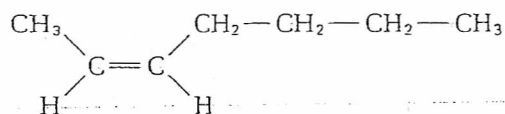
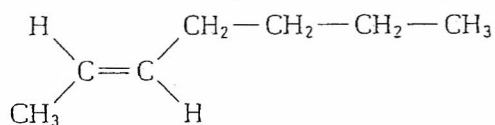
9. Name each compound.



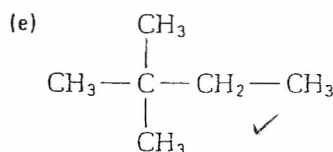
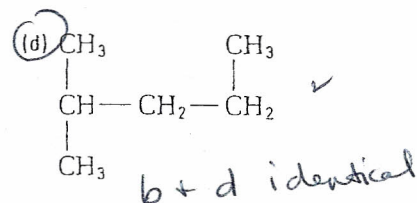
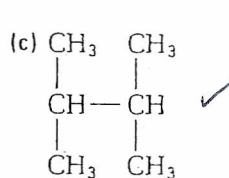
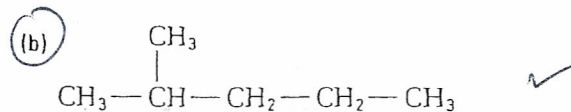
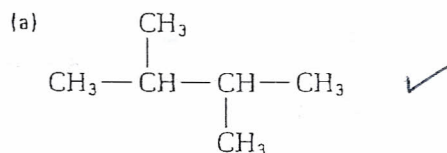
10. For each structural diagram, write the IUPAC name and identify the type of aliphatic compound.



11. Name the following isomers of 2-heptene.



16. Which combinations of the following structural diagrams represent true isomers of C_6H_{14} ? Which structural diagrams represent the same isomer?

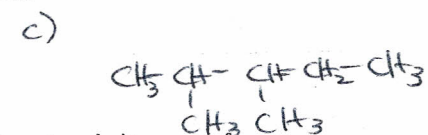
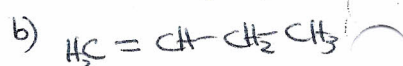
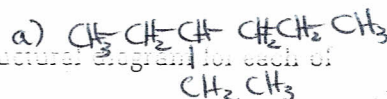


20. Draw a complete structural diagram for each of these compounds.

(a) 3-ethylhexane

(b) 1-butene

(c) 2,3-dimethylpentane



21. Draw a condensed structural diagram for each of these compounds.

(a) methylpropane

(b) 1-ethyl-3-propylcyclopentane

(c) cis-3-methyl-3-heptene

(d) 3-butyl-4-methyl-1-octyne

(e) 4-ethyl-1-cyclooctene

22. (a) Draw four structural isomers of C_5H_{12} .

