



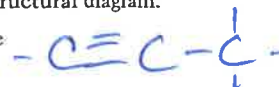
# 40 ALKENES, ALKYNES, AND AROMATICS

For each of the following IUPAC names, draw a structural diagram.

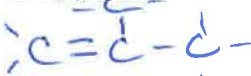
1. ethene (ethylene)



2. propyne



3. methylpropene



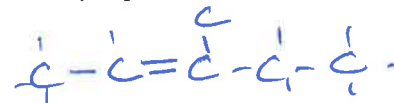
4. methyl-1-butyne



5. ethylbenzene



6. 3-methyl-2-pentene



For each of the following structural diagrams, write the IUPAC name.

7.  $CH_3 - C \equiv C - CH_3$

2-butyne

8.  $CH_3 - CH_2 - CH_2 - CH = CH_2$

1-pentene

9.  $\begin{array}{c} CH_3 \\ | \\ CH_3 - C = CH - CH_3 \end{array}$

2-methyl-2-butene

10.  $CH_3 - \overset{\overset{C}{|}}{CH} - CH_3$



isopropyl benzene  
or  
2-phenylpropane

11.  $CH_2 = CH - CH_3$

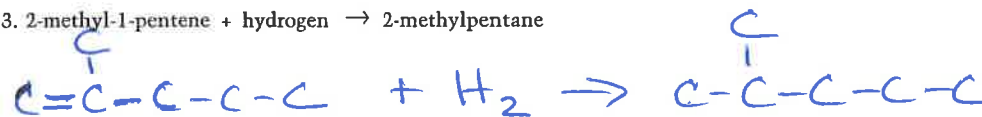
1-propene

12.  $CH_3 - C \equiv C - \overset{\overset{CH_3}{|}}{CH} - CH_3$

4-methyl-2-pentyne

For each of the following questions, draw a structural diagram equation and classify the reaction type.

13. 2-methyl-1-pentene + hydrogen  $\rightarrow$  2-methylpentane



14. butane  $\rightarrow$  1-butene + 2-butene + hydrogen



15. acetylene + oxygen  $\rightarrow$