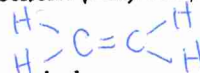




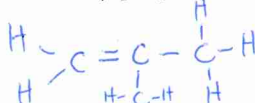
**40** ALKENES, ALKYNES, AND AROMATICS

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

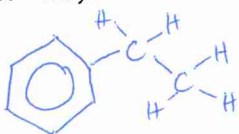
1. ethene (ethylene)



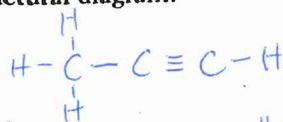
3. methylpropene



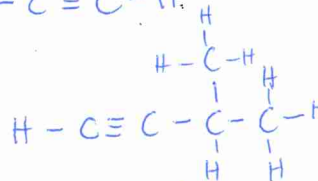
5. ethylbenzene



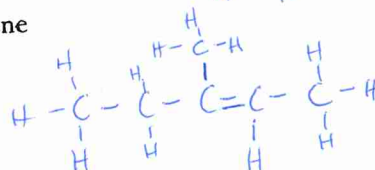
2. propyne



4. methyl-1-butyne



6. 3-methyl-2-pentene



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

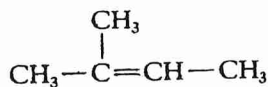
7.  $\text{CH}_3-\text{C}\equiv\text{C}-\text{CH}_3$

2-butyne

8.  $\text{CH}_3-\text{CH}_2-\text{CH}_2-\text{CH}=\text{CH}_2$

1-pentene

9.



2-methyl-2-butene

10.  $\text{CH}_3-\text{CH}-\text{CH}_3$



2-phenylpropane

11.  $\text{CH}_2=\text{CH}-\text{CH}_3$

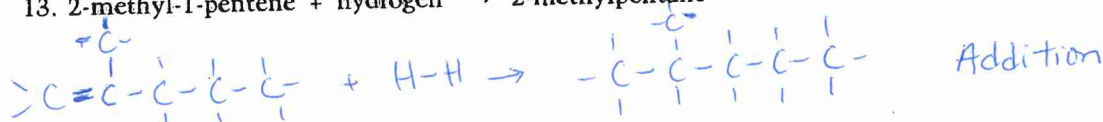
propene

12.  $\text{CH}_3-\text{C}\equiv\text{C}-\underset{\text{CH}_3}{\text{CH}}-\text{CH}_3$

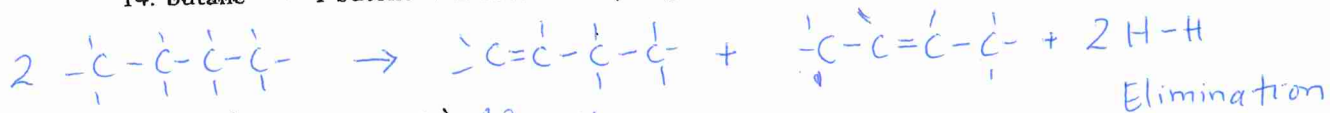
methyl-2-pentyne

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  $\rightarrow$   $\text{CO}_2 + \text{H}_2\text{O}$

