# Review of Hydrocarbons: Naming Aliphatic and Aromatic Hydrocarbons

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

(a) 2-methylpentane

(b) octane

(c) 2,2,3-trimethylpentane

(d) ethene

(e) propyne

(f) methylpropyne

(g) cyclohexane

(h) 1,2-dimethylbenzene

(i) ethylbenzene

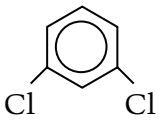
2. For each of the following structural diagrams, write the IUPAC name.

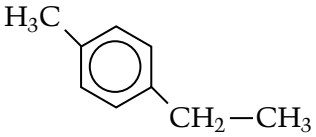
(a) $CH_3-CH_2-CH_2-CH=CH_2$

(b) $CH_3-CH=C(CH_3)-C(CH_3)_2-CH_3$

(c) $CH_3-C\equiv C-\underset{\displaystyle CH_3}{\underset{|}{CH}}-CH_2-CH$

(d) 

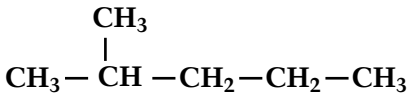
(e) 


(f) 

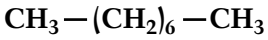
# Review of Hydrocarbons: Naming Aliphatic and Aromatic Hydrocarbons, Solution

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

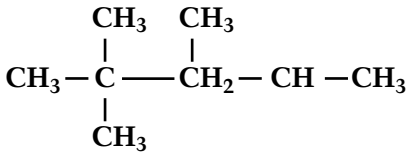
(a) 2-methylpentane



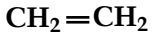
(b) octane



(c) 2,2,3-trimethylpentane

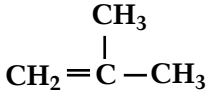


(d) ethene (ethylene)



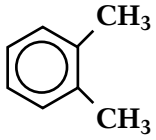
(e) propyne

(f) methylpropene

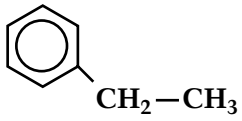


(g) cyclohexane

(h) 1,2-dimethylbenzene



(i) ethylbenzene



*(continued)*

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

(a) $CH_3-CH_2-CH_2-CH=CH_2$

**1-pentene**

(b) $CH_3-CH=C(CH_3)-C(CH_3)_2-CH_3$

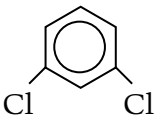
**3,4,4-trimethyl-2-pentene**

(c) $CH_3-C\equiv C-CH(CH_3)-CH_2-CH_3$

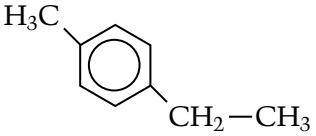
**4-methyl-2-hexyne**

(d) 

**2,3-dimethylbutane**

(e) 


**1,3-dichlorobenzene**

(f) 


**1-ethyl-4-methylbenzene**