

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

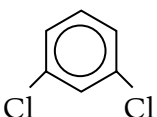
2. For each of the following structural diagrams, write the IUPAC name.

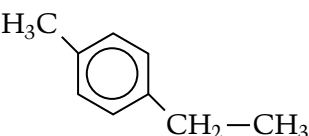
(a) $\text{CH}_3 - \text{CH}_2 - \text{CH}_2 - \text{CH} = \text{CH}_2$

(b) $\text{CH}_3 - \text{CH} = \text{C}(\text{CH}_3) - \text{C}(\text{CH}_3)_2 - \text{CH}_3$

(c)
$$\begin{array}{c} \text{CH}_3 - \text{C} \equiv \text{C} - \text{CH} - \text{CH}_2 - \text{CH} \\ | \\ \text{CH}_3 \end{array}$$

(d) 

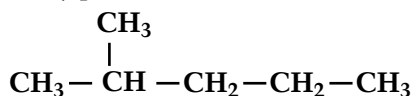
(e) 

(f) 

Review of Hydrocarbons: Naming Aliphatic and Aromatic Hydrocarbons, Solution

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

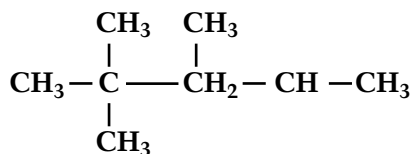
(a) 2-methylpentane



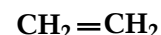
(b) octane



(c) 2,2,3-trimethylpentane



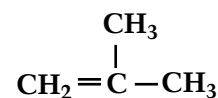
(d) ethene (ethylene)



(e) propyne



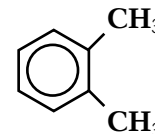
(f) methylpropene



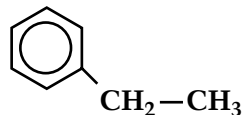
(g) cyclohexane



(h) 1,2-dimethylbenzene



(i) ethylbenzene



(continued)

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

