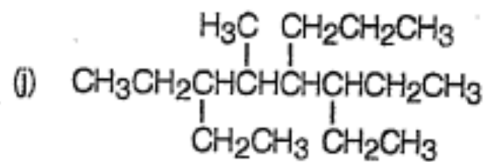
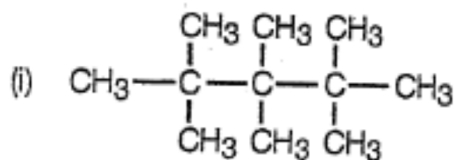


Date:

Assignment

3. (a) $\text{CH}_3\text{--CH}_2\text{--CH(CH}_3\text{)--CH}_2\text{--CH}_2\text{--CH}_3$
- (b) $\text{CH}_3\text{--CH}_2\text{--CH}_2\text{--CH(CH}_3\text{--CH}_2\text{)--CH}_2\text{--CH}_2\text{--CH}_2\text{--CH}_3$
- (c) $\text{CH}_3\text{--CH(CH}_3\text{)--CH}_2\text{--CH}_2\text{--CH}_3$
- (d) $\text{CH}_3\text{--CH}_2\text{--CH}_2\text{--CH(CH}_3\text{--CH}_2\text{--CH}_2\text{)--CH}_2\text{--CH}_2\text{--CH}_2\text{--CH}_2\text{--CH}_3$
- (e) $\text{CH}_3\text{--CH}_2\text{--CH(CH}_3\text{--CH}_2\text{)--CH}_2\text{--CH}_2\text{--CH}_2\text{--CH}_3$
- (f) $\text{CH}_3\text{CH}_2\text{CH}_2\text{CH}_2\text{CH(CH}_3\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_3)$
4. a. the longest chain is actually heptane and it was numbered backwards
b. the longest chain is actually hexane
c. the second carbon from the left should only have 2 hydrogens attached
d. the central carbon is making 5 bonds, so should not have a hydrogen attached

- 5.
- a)
$$\begin{array}{c} \text{CH}_3 \\ | \\ \text{CH}_3\text{CHCCH}_2\text{CH}_2\text{CH}_3 \\ | \quad | \\ \text{H}_3\text{C} \quad \text{CH}_2\text{CH}_3 \end{array}$$
- b)
$$\begin{array}{c} \text{CH}_3 \quad \text{CH}_2\text{CH}_2\text{CH}_3 \\ | \quad | \\ \text{CH}_3\text{CCH}_2\text{CH}_2\text{CHCHCH}_2\text{CH}_2\text{CH}_3 \\ | \quad | \\ \text{CH}_3 \quad \text{CH}_2\text{CH}_2\text{CH}_3 \end{array}$$
- c)
$$\begin{array}{c} \text{CH}_3 \quad \text{CH}_2\text{CH}_2\text{CH}_3 \\ | \quad | \\ \text{CH}_3\text{CH}_2\text{CHCHCHCH}_2\text{CH}_2\text{CH}_3 \\ | \\ \text{CH}_2\text{CH}_3 \end{array}$$
- d)
$$\begin{array}{c} \text{H}_3\text{C} \quad \text{CH}_3 \\ | \quad | \\ \text{CH}_3\text{C}-\text{CCH}_2\text{CH}_3 \\ | \quad | \\ \text{H}_3\text{C} \quad \text{CH}_3 \end{array}$$
- e)
$$\begin{array}{c} \text{CH}_3\text{CH}_2\text{CH}-\text{CHCH}_2\text{CH}_3 \\ | \quad | \\ \text{CH}_3\text{CH}_2 \quad \text{CH}_2\text{CH}_3 \end{array}$$
- f)
$$\begin{array}{c} \text{CH}_3 \quad \text{CH}_3\text{CH}_2 \quad \text{CH}_3 \\ | \quad | \quad | \\ \text{CH}_3\text{CH}_2\text{CCH}_2\text{CH}-\text{C}-\text{CHCH}_2\text{CH}_2\text{CH}_3 \\ | \quad | \quad | \\ \text{CH}_3 \quad \text{CH}_2\text{CH}_3 \quad \text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_3 \end{array}$$
- g)
$$\begin{array}{c} \text{CH}_3 \\ | \\ \text{CH}_3\text{CCH}_3 \\ | \\ \text{CH}_3 \end{array}$$
- h)
$$\begin{array}{c} \text{CH}_2\text{CH}_3 \\ | \\ \text{CH}_3\text{CHCH}_2\text{CHCH}_2\text{CH}_2\text{CH}_2\text{CH}_3 \\ | \\ \text{CH}_3 \end{array}$$



6. a. 3,4-dimethylheptane b. 3,4,4,5-tetraethylheptane c. 2,2,7,7-tetramethyloctane
 d. 3-ethyl-4,5-dimethylheptane e. 4-ethyl-4-methyloctane f. 2,2,5-trimethyloctane
 g. 4,6-dimethylnonane h. decane i. 4,5-diethyl-3,7-dimethylnonane
 j. 3,3,4,5-tetramethyloctane k. 4-ethyl-3-methyl-5-propyloctane
 l. 3,6-diethyl-5,8-dimethyldecane