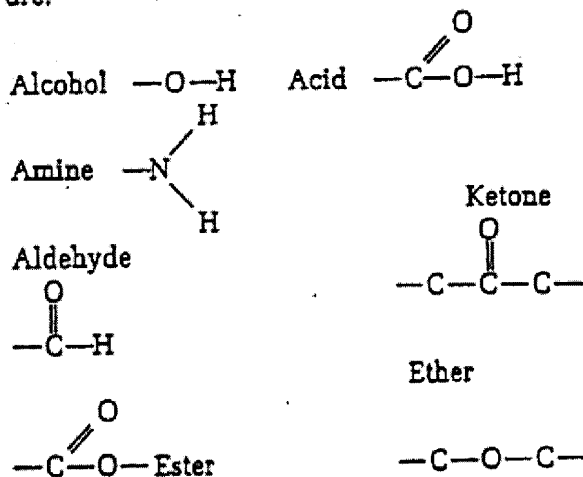


exercise 15-B

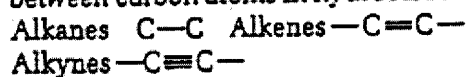
CHEMICAL HIDE AND SEEK

Compounds are classified according to the functional group or groups that are present in their molecular structure. Read Chapter 15 in the Reader-Text.

Some classes of compounds and their functional groups are:

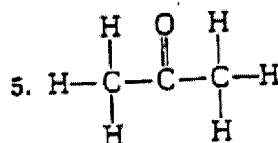
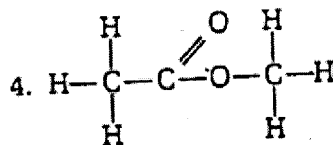
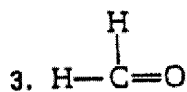
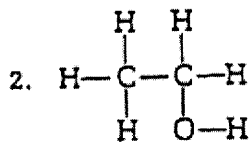
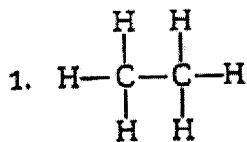


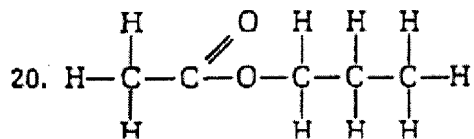
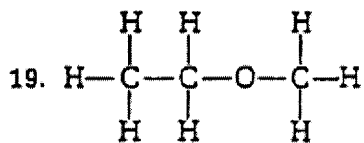
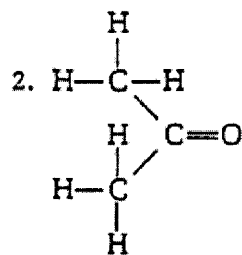
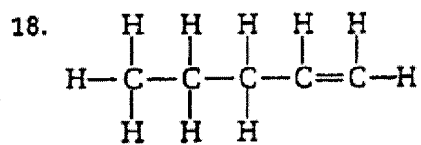
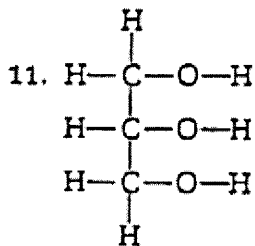
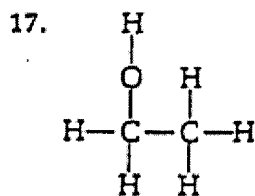
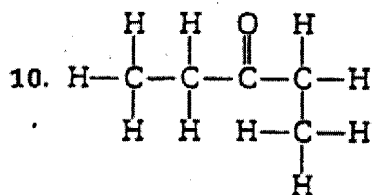
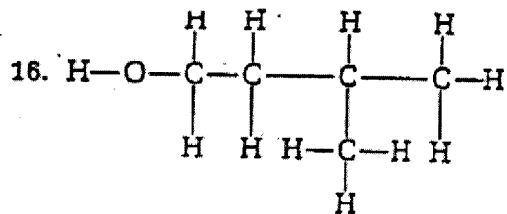
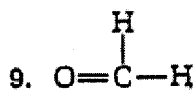
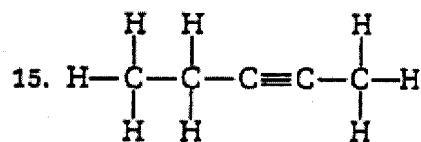
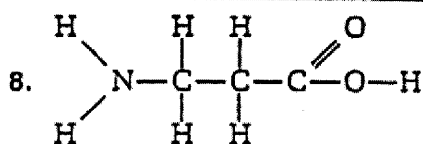
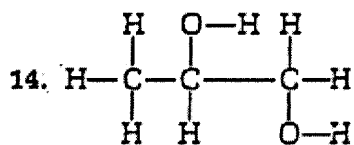
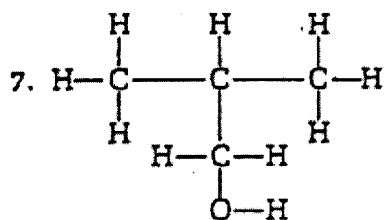
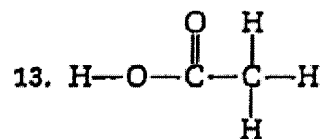
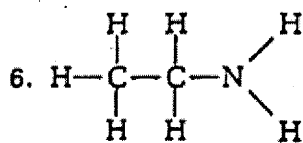
Other compounds are classified according to the bonding between carbon atoms in hydrocarbons:



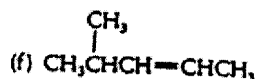
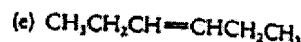
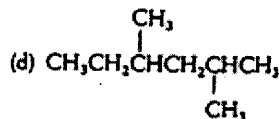
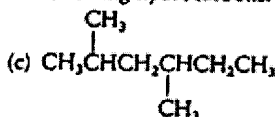
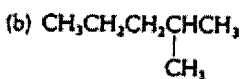
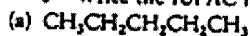
The object of Chemical Hide and Seek is to find the hidden clues (functional groups or carbon to carbon bonding) and "call out" by writing the name of the class of compound beside each "formula." The student who gets the most right is the winner.

In this game, you are just trying to find functional groups in the formulas given and are not trying to "call out" the correct names of the compounds.





1 Write the IUPAC names of the following hydrocarbons.



2 Write the condensed structures of the following compounds.

(a) 2,2-dimethyloctane

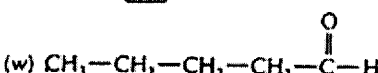
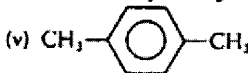
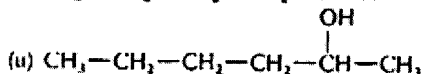
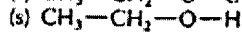
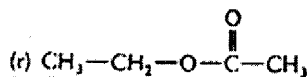
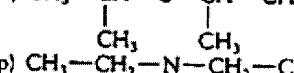
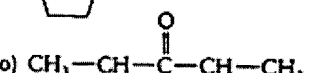
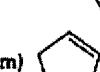
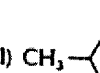
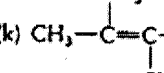
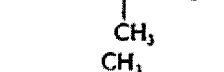
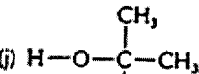
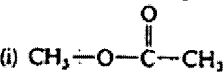
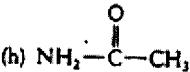
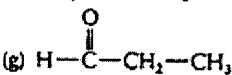
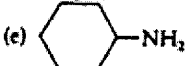
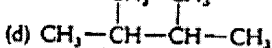
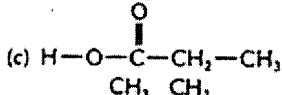
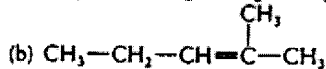
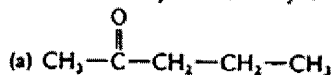
(b) 1,3-dimethylcyclopentane

(c) 1,1-diethylcyclohexane

(d) 6-ethyl-5-isopropyl-7-methyl-1-octene

Functional Group Recognition

3 Each compound below has one functional group or is in the alkane family. What family is each in?



Isomers

4 Examine each of the following pairs of structures and decide if the two are of identical compounds, are isomers, or are unrelated.

