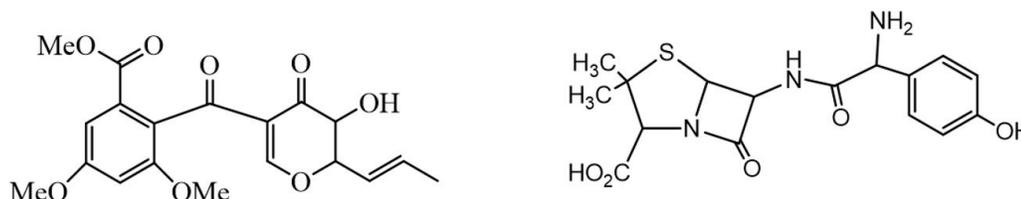


Functional Groups

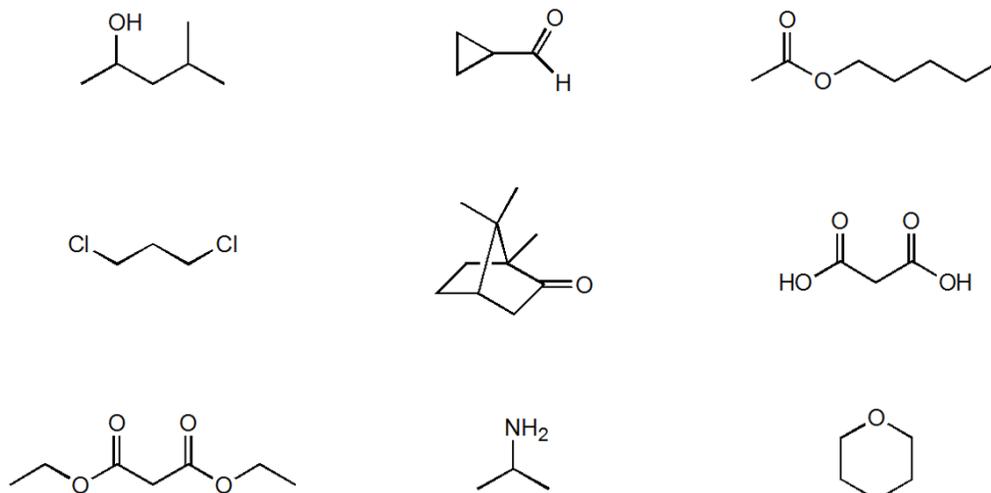
1.

For the structures below, circle the atoms necessary to identify one example of all the major functional groups present (remember to list the name as well). NOTE: alkane is not an identified functional group-it is the name you use when there are no better groups available so do NOT list "alkane".

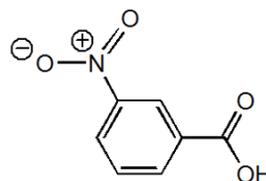
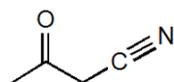
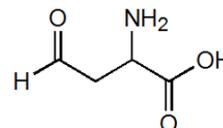
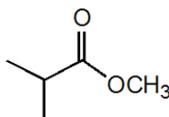
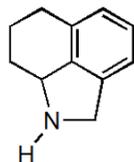
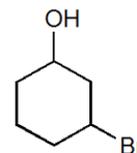
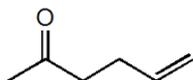
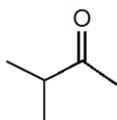


2.

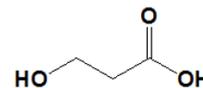
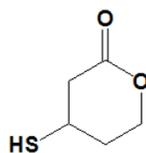
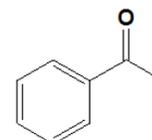
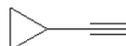
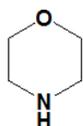
The following molecules only have a single functional group. Identify to which class of organic compounds each molecule belongs based on its functional group.



3. Label the functional groups in the molecules below. For each compound fill in the assumed nonbonding electron pairs and the assumed hydrogens. All atoms are neutral unless a charge is shown. Assign the hybridization/geometry for each atom.



4. Provide the functional groups, excluding alkanes, present in each molecule. Identify all 4° carbons and all 1° hydrogens.



5. Label the functional groups in the structures below:

