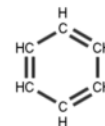
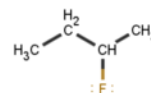
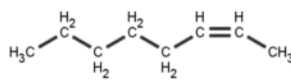
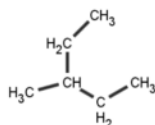
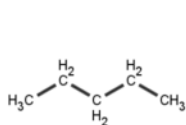
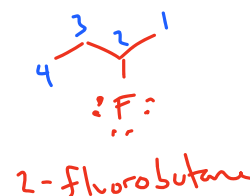
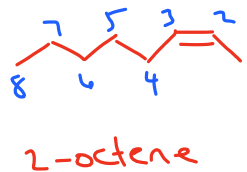
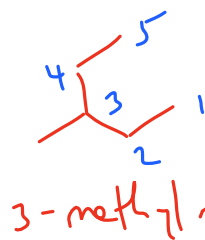


Carbon Structures and Functional Groups

For problems 1-4, refer to these compounds



1. Convert each of the following condensed structures to a skeletal structure. Remember that lone pairs should always be shown.

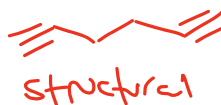
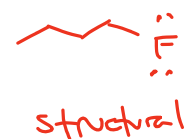
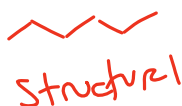
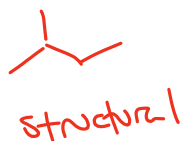


2. Name each of the compounds.

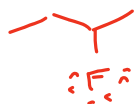
see above

3. Draw one isomer of each compound from problem 1. State whether it is a structural or stereoisomer.

Many possibilities - here is one for each



4. Which compound is will have the highest solubility in water? Explain your answer.

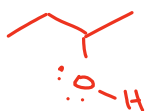


It is the only molecule that is polar.

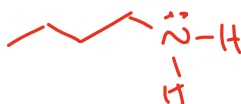
5. Draw the skeletal structure of a four carbon compound that contains each functional group.

Again, multiple possible answers

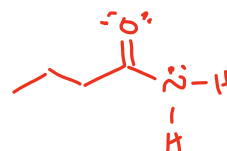
Alcohol



Amine



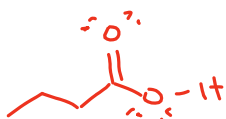
Amide



Ether



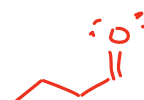
Carboxylic Acid



Ester



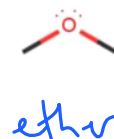
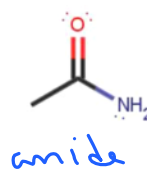
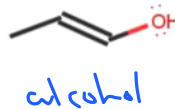
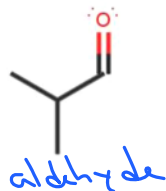
Aldehyde



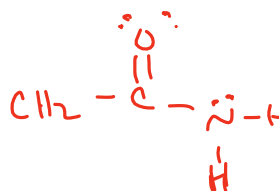
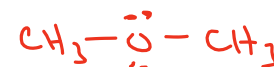
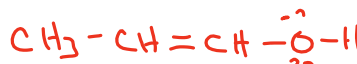
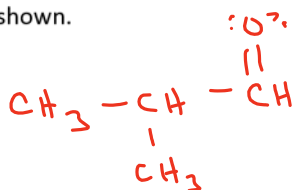
Ketone



Refer to these compounds for the remaining questions:



6. Convert each of these structures to a condensed Lewis structure. Remember that lone pairs should always be shown.



7. Identify the common functional group present on each compound.

see above

8. Draw one isomer of each compound. If the type of functional group changes, determine what the new group is.

