**Organic Chemistry Worksheet**

Classify each of the following compounds as either an alkane, cycloalkane, alkene, alkyne, aromatic hydrocarbon, alcohol, ether, aldehyde, ketone, ester, or carboxylic acid.



1. alkene



1. Aromatic hydrocarbon



 c.

 alkane



 d.

 alcohol



 e.

 Carboxylic acid



 f.

 cycloalkane



 g.

 ketone

 h. C6H10 alkyne

2) Give the correct ***IUPAC***name for each of the following organic compounds.





 a. d.

2,3-dimethylpentane 3,3-dimethyl-1-butyne



 b. e.



 Ethylbenzene 4-ethyl-2-methylhexane



 c. f.



6-methyl-2-heptene cyclooctane

3) For each of the following, give the ***major*** product(s) formed during the ***complete*** reaction of the indicated reactants. The reactions are not necessarily balanced. Note that you do not have to balance the equations.



 a.

 

 b. There is more than one organic product formed here. Just give one.

 



 c.

 



 d.

 



 e.

 

 f.

 



4. Draw the structural formulas for the cis and trans isomers of 2-hexene. Label the isomers as either cis or trans.

