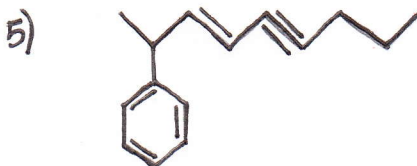
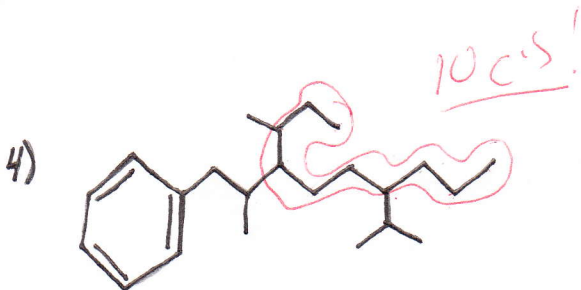
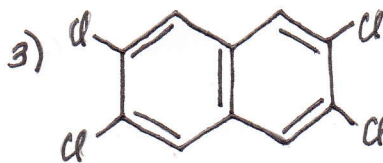
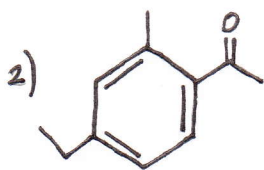
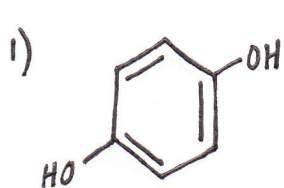


A.) Name the following:



B.) Draw the following:

1) p-(chloromethyl)isopropylbenzene

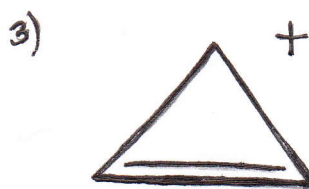
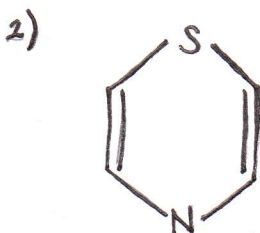
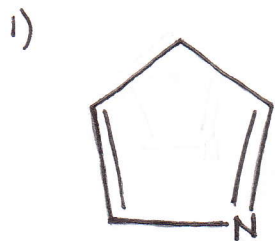
2) 3,4-dinitrobenzoic acid

3) (Z)-2-bromo-6-iodo-6,9-dimethyl-8-phenyl-3-decene

4) 5-amine-2-sec-butyl-3-chloroacetophenone

5) 2,4-dibromo-3,6-dichloro-5-iodotoluene

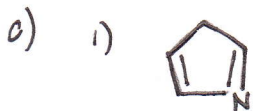
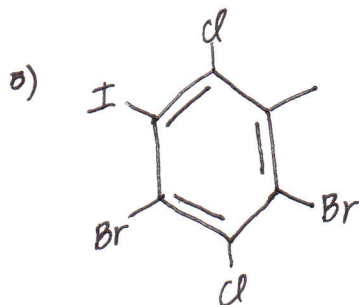
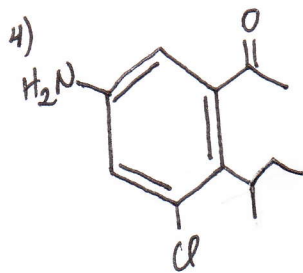
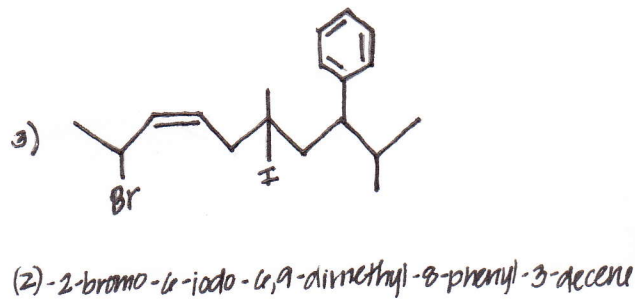
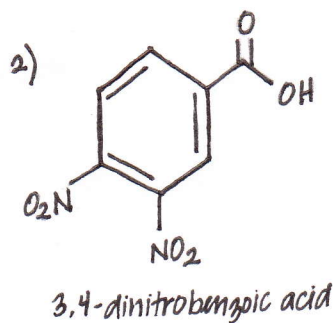
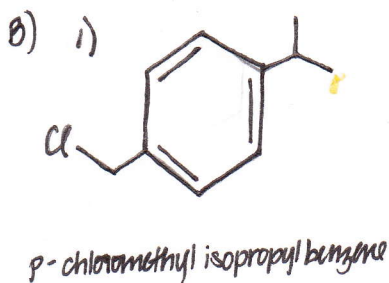
c.) Are the following aromatic? Why or why not?



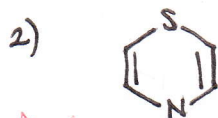
ANSWERS - Cyclobonders

2

- A) 1) p-hydroxyphenol
 2) 4-ethyl-2-methylacetophenone
 3) 2,3,6,7-tetrachloronaphthalene
 4) 3-sec-butyl-6-isopropyl-2-methyl-1-phenylnonane
 5) (E)-2-phenyl-3-nonen-5-yne



No - N is sp^2 so can not use lone pair as πe^- ; therefore only total of two pairs of πe^-
 $4n + 2 = 4$
 $n = 1/2 \rightarrow$ not integer



~~Yes~~ - S is sp^3 so can use one lone pair as πe^- ; therefore
 $4n + 2 = 6$
 $n = 1$
 what about N?
 Yes $\oplus \pi$ elec



Yes - there are 2 πe^- (from double bond); therefore
 $4n + 2 = 2$
 $n = 0$ (still an integer)