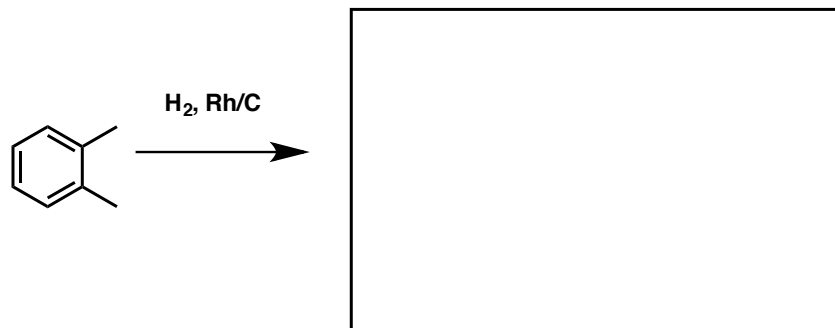


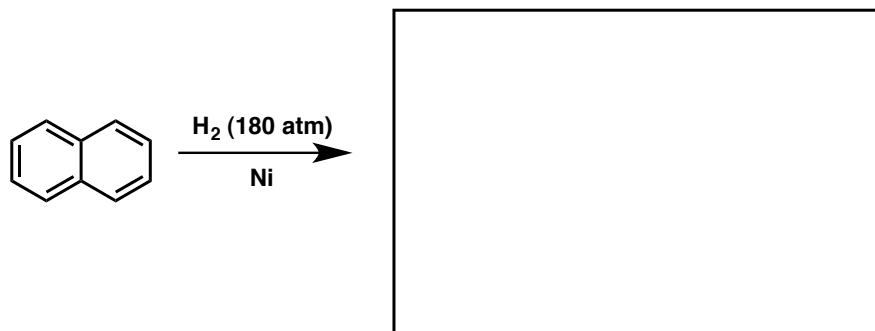
CHEM 3332 Honors
Homework for Aromaticity

1. Predict the major product (or products) for these reactions. Don't forget to show the stereochemistry in the products if the reaction is stereoselective.

A.

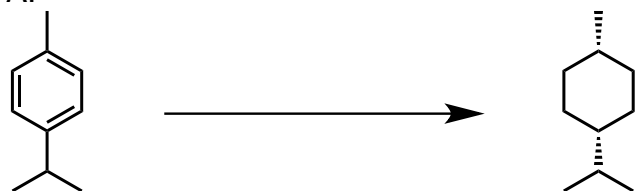


B.



2. Give reagents to perform the following transformations.

A.

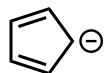


3. Draw a Frost Circle/Diagram for the following.

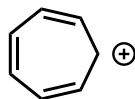
A.



B.



C.

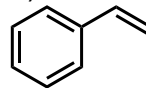


4. Draw the molecular orbitals for the following compounds and state whether they are aromatic.

A)



C)



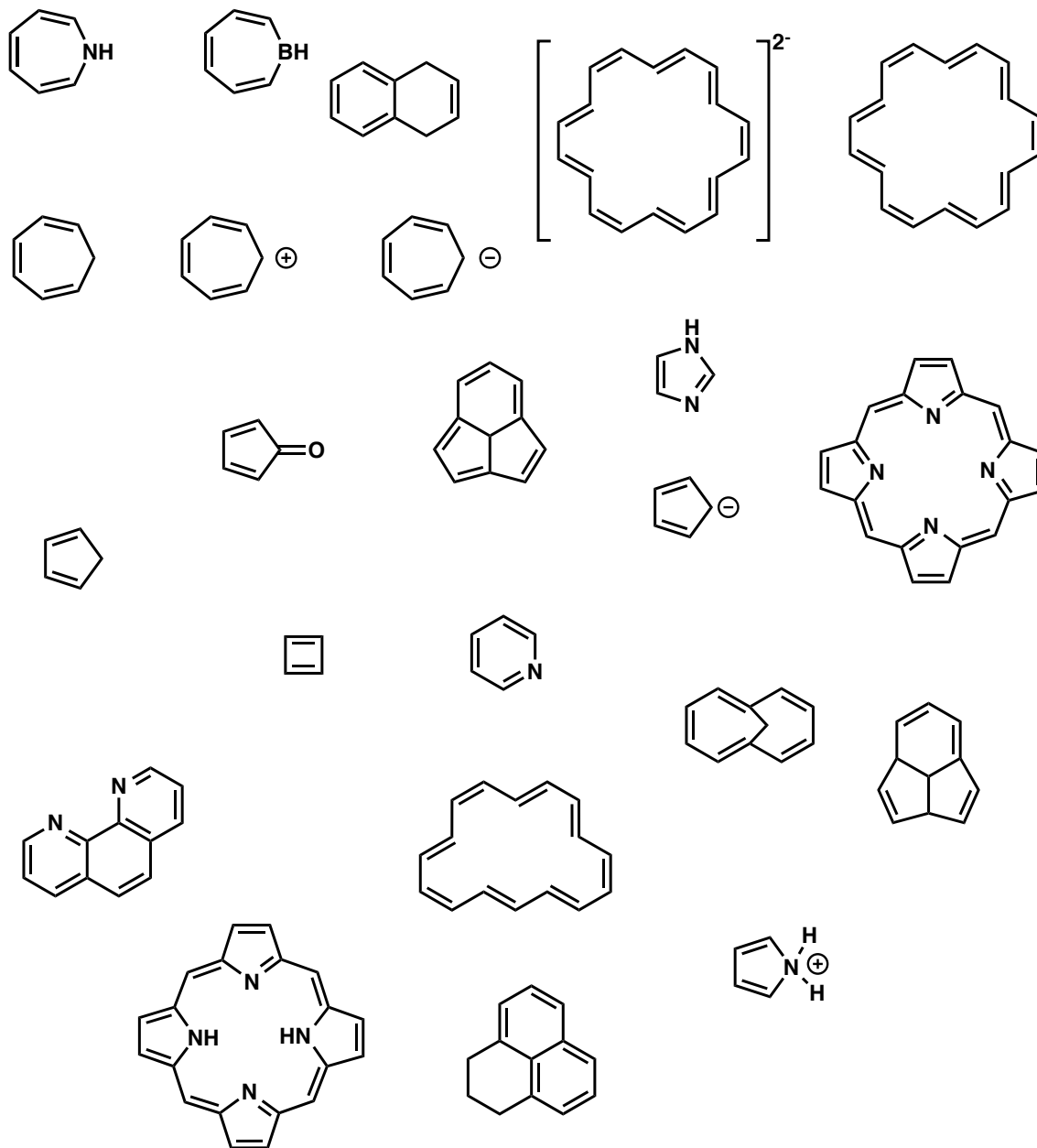
B)



D)

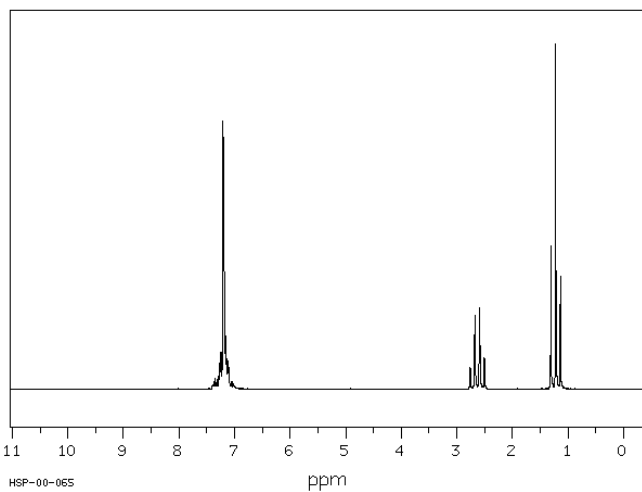


5. Label the following as aromatic, nonaromatic, or antiaromatic.



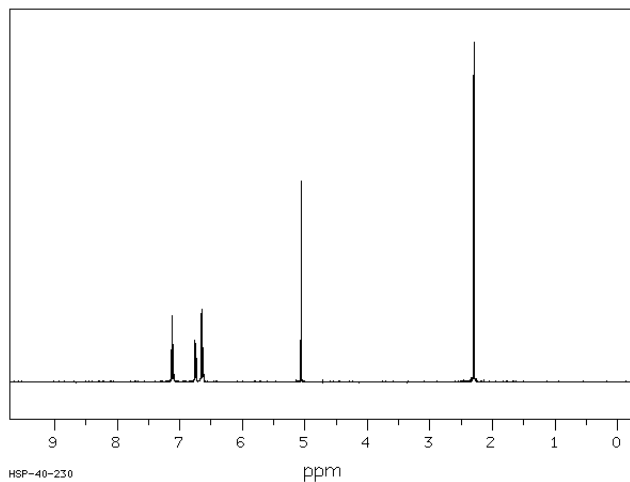
6. Provide the structure for the following:

A. C₈H₁₀



A	1.22 ppm	3H	t
B	2.63 ppm	2H	q
C	7.0–7.45 ppm	5H	m

B. C₇H₈O



A	7.12 ppm	1H	dd
B	6.75 ppm	1H	d
C	6.65 ppm	1H	s
D	6.64 ppm	1H	d
E	5.06 ppm	1H	s
F	2.30 ppm	3H	s