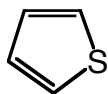
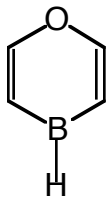


1. Determine the number of π electrons for each compound below, then indicate whether they are aromatic, antiaromatic, or neither. Assume the molecules are neutral and planar unless otherwise indicated.



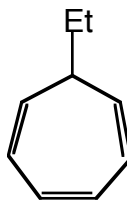
Number of
 π electrons: ____

Aromatic,
Antiaromatic,
or
Neither?



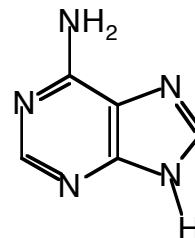
Number of
 π electrons: ____

Aromatic,
Antiaromatic,
or
Neither?



Number of
 π electrons: ____

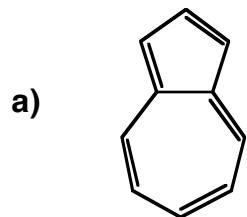
Aromatic,
Antiaromatic,
or
Neither?



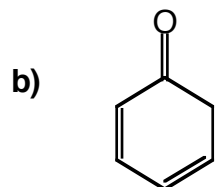
Number of
 π electrons: ____

Aromatic,
Antiaromatic,
or
Neither?

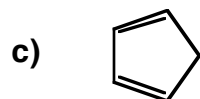
2. Listed below are some unexpected observations with regard to concepts we've covered thus far this semester. Use your knowledge of OChem to explain these phenomena. Be explicit in your explanations. In other words, don't just "say" resonance, draw it! Don't just "say" something is more stable, illustrate why!



This molecule is polar!



The tautomerization reaction that forms this molecule actually favors the enol form!



This molecule is more acidic than an alkyne!