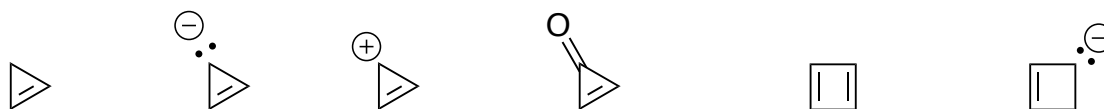


Aromatic Compounds

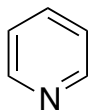
Criteria for a compound to be considered aromatic

1. Must be cyclic
2. Each atom in the ring has a "p orbital"
 - Planar or nearly planar (promotes resonance)
3. There are $(4n+2)$ pi electrons in the ring (Huckel rule where "n" is any integer).
 - In other words, the allowable number of pi electrons are 2, 6, 10, 14...

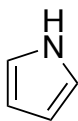
Determine whether the following compounds are aromatic. Circle the aromatic compounds.



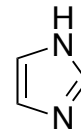
These are heterocyclic aromatic compounds. Explain why each is aromatic.



Pyridine



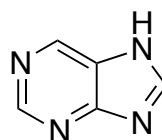
Pyrrole



Imidazole



Furan



Purine