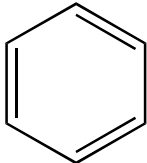

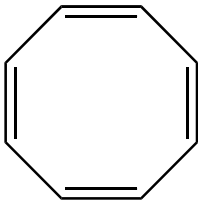
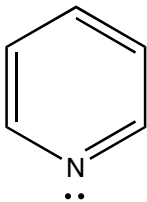
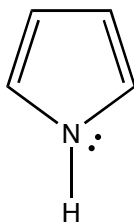


4n pi electrons = ?	What is the Huckel number of pi electrons for an anti-aromatic molecule?
Essential requirements for Aromaticity?	<ol style="list-style-type: none"> 1. cyclic array of sp² hybridized orbitals 2. 4n+2 π electrons 3. planar
Essential requirements for anti-aromaticity?	<ol style="list-style-type: none"> 1. cyclic array of sp² hybridized orbitals 2. 4n π electrons 3. planar
Diamagnetic ring current	Deshielding effect of aromatic protons
Paramagnetic ring current	Shielding effect of anti-aromatic protons

<p>$[4n + 2]$ pi electrons = ?</p>	<p>What is the Huckel number of pi electrons for an aromatic molecule?</p>
<p>Aromatic, anti-aromatic or non-aromatic?</p> 	<p>What is the structure of the AROMATIC molecule BENZENE?</p>
<p>Aromatic, anti-aromatic or non-aromatic?</p> 	<p>What is the structure of the ANTI-AROMATIC molecule CYCLOBUTADIENE?</p>
<p>Aromatic, anti-aromatic or non-aromatic?</p> 	<p>What is the structure of the NON-AROMATIC molecule CYCLOOCTATETRAENE?</p>
<p>Are the lone pair nitrogens part of the pi system?</p> 	<p>NO! the lone pair on the nitrogen is NOT involved in the pi system because the N is part of the double bond already</p>

Are the lone pair nitrogens part of the pi system?



YES! The nitrogen atom must adopt SP² hybridization to place the lone pair in the pi system to achieve 6pi electrons, which is a Huckel number of pi electrons required for aromaticity
