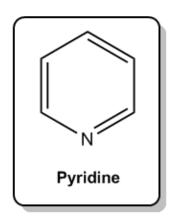
## **CONCEPT:** AROMATICITY OF HETEROCYCLES

Heterocycles are cyclic structures that contain a \_\_\_\_\_\_ within the ring.

- Heteroatoms can choose to donate up to one lone pair each only if:
  - 1. They are already sp<sup>3</sup> hybridized
  - 2. It will help to create aromaticity



**EXAMPLE:** Determine the aromaticity of the following heterocycles. Will any lone pairs be donated to the ring?

a. (

b. N—

d.



э.

f. NH

g.

H<sub>2</sub>N

N H