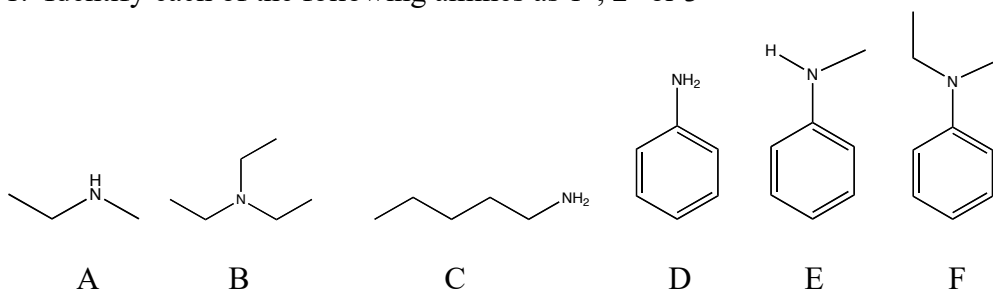
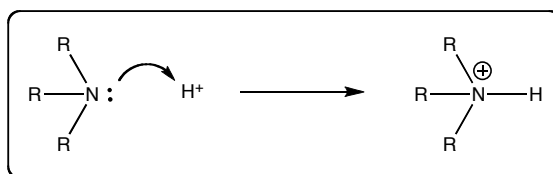


Chapter 23 Practice Problems

1. Identify each of the following amines as 1°, 2° or 3°

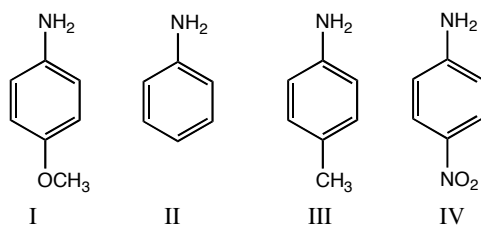


2. The basicity of amines requires the nitrogen atom to donate a lone pair of electrons to a proton source as shown below:



A. Given this information, explain why p-chloroaniline is a weaker base than aniline.

B. Rank the following compounds according to their expected basicities:



3. Practice the following problems for the synthesis of amines by providing the missing items as required:

