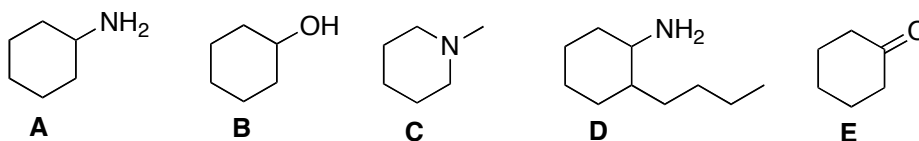
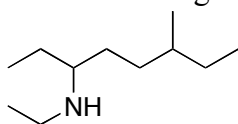


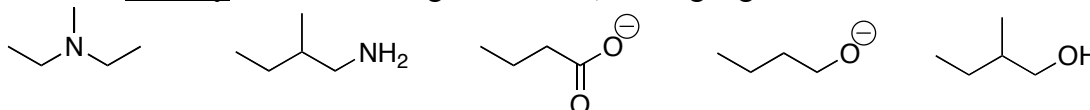
1. Solubility/Boiling point problem. Which of the following statements is **false**?
- The water solubility of **A** is greater than for **B**, because amines are more basic and thus hydrogen bond better with water.
 - The boiling point of **B** is greater than for **A**, because alcohols are more acidic and thus hydrogen bond better with themselves.
 - The relative boiling points should be **D** > **A** > **C**
 - The relative water solubilities should be **D** > **A** > **C**
 - Structures **C** and **E** can hydrogen bond to water, but neither can hydrogen-bond to itself



2. Name the following:

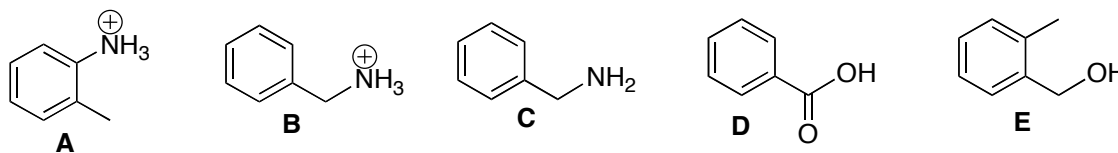


3. Rank the **basicity** of the following from 1 to 5, 1 being highest.

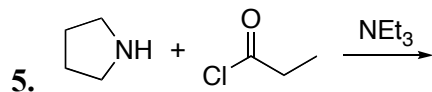


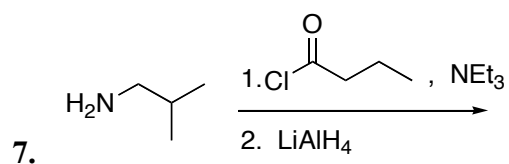
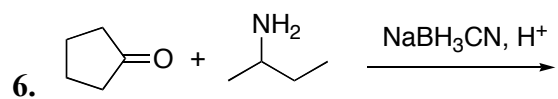
4. Which of the following statements is **false** regarding the acidities of structures **A-E**:

- In terms of acidity, **A** > **B** > **C**
- In terms of acidity, **D** > **B** > **E**
- In terms of acidity, **E** > **B**

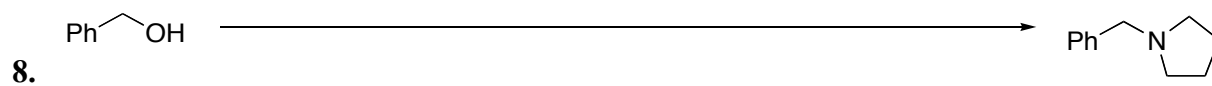


Predict the Products for the Following Reactions





Design Syntheses for the Following



Draw the mechanism for the following reactions.

