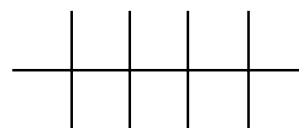
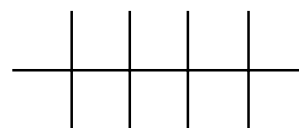
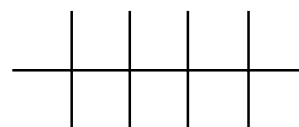
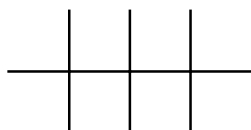
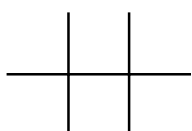
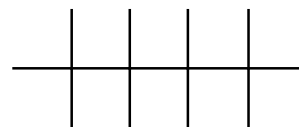
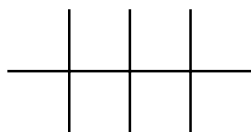
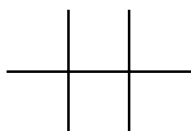
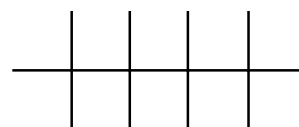
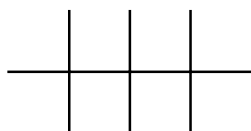
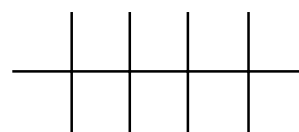
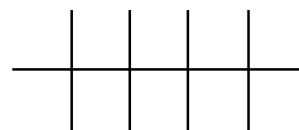
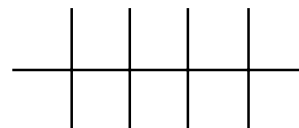
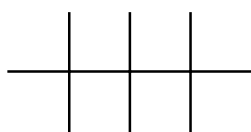
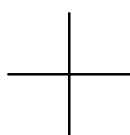


Name _____

1) Draw and name all natural aldotriose through aldohexose monosaccharides. **15pts**

Place the atoms on the provided Fischer Projections. The top of the projections is the left side of the paper. Place the name of each sugar below (right side) the structure.

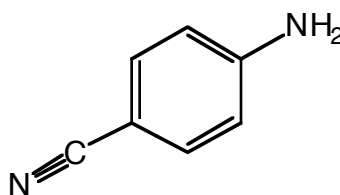
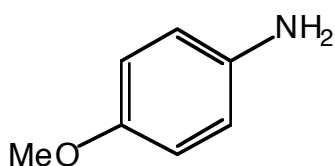
TOP



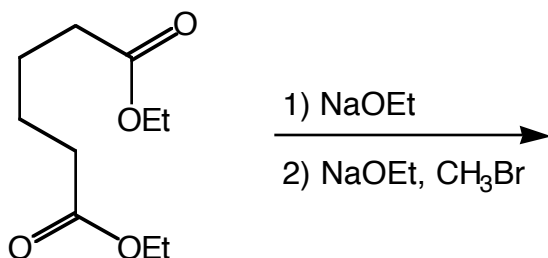
2) Show the Haworth Projection and a chair conformer of the pyranose form of D-galactose. (If you aren't sure of the structure of galactose - pick some structure and go with it for partial credit.) **6pts**

3) Is the alpha or beta form of D-Galactopyranose more stable? Why? **6pts**

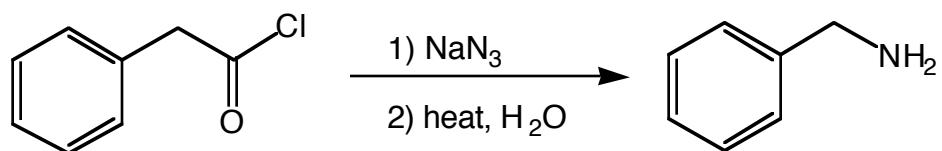
4) Which is more basic? Why? **6pts**



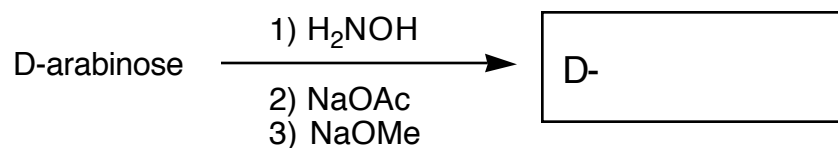
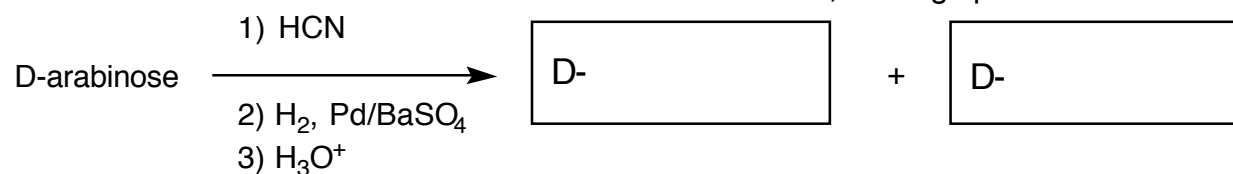
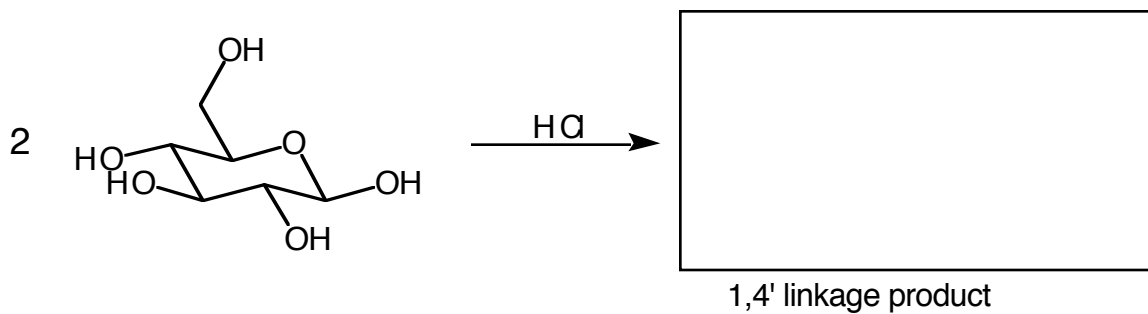
5) Complete the following reaction: **8pts**

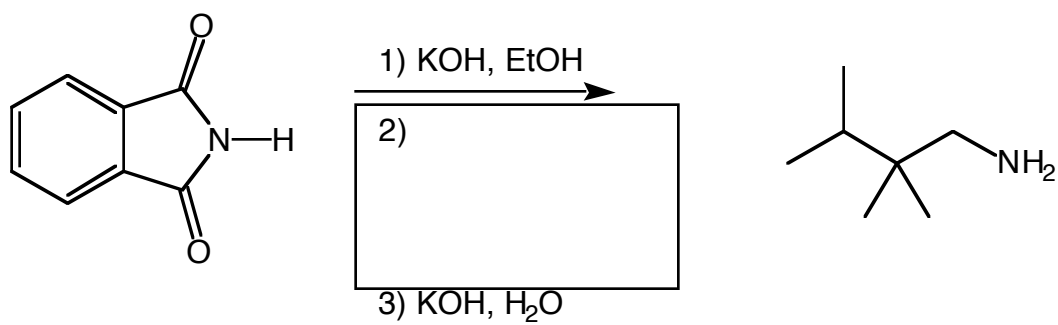
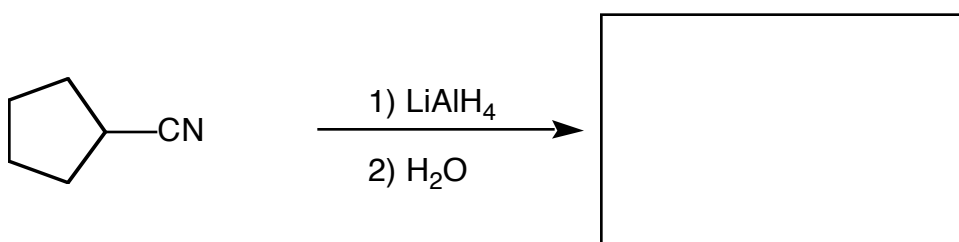
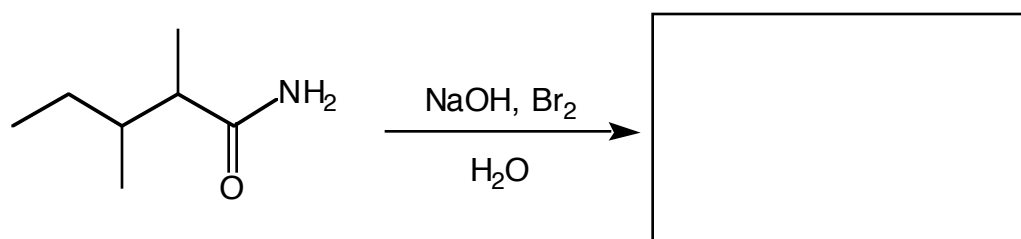
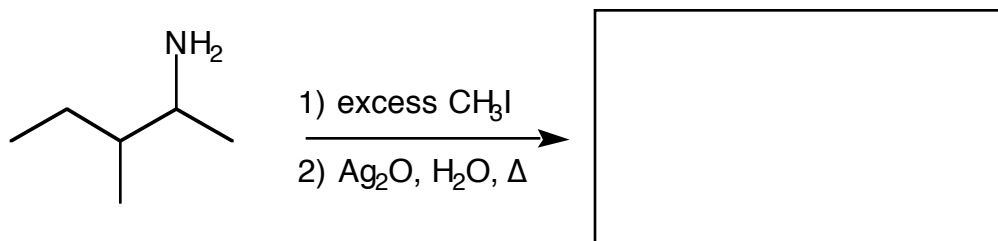
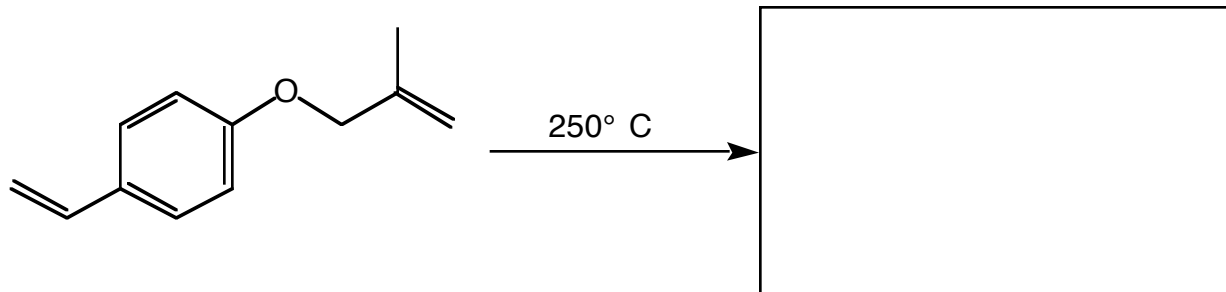


6) Provide a mechanism for the following reaction: **13pts**



7) Finish the following reactions: **32pts**





8) Synthesize the following molecule from D-glucose. **14pts**

