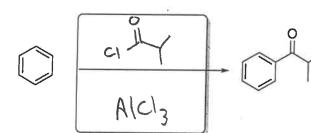
PRE-SPRING BREAK OCHEM IN-CLASS COMPETITION

Team Name:	KET	

3/8/24

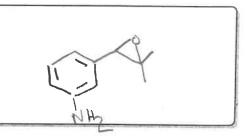
Members:

1. Give the reagents and products for the following:



- 1. HNO₃, H₂SO₄ 2. H₂ (excess), Pd 3. NBS, hv

- 4, NaOEt
- 5. RCO₃H



2. Give the reagents for the following:

3. Draw a detailed step-wise mechanism showing the formation of the following product. Include all reactive intermediates and curly arrows in your mechanism.

4. Provide a retrosynthetic analysis for the following molecule starting with benzene and any other starting materials. You may also use any inorganic reagents that may be needed.