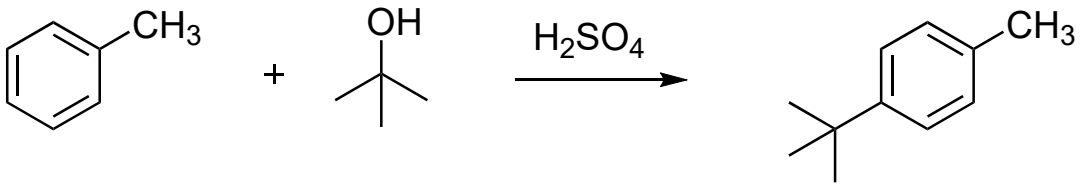
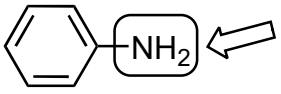
4A. (10 pts) Provide a complete mechanism to account for the reaction shown. Pay close attention to details, including lone pairs, formal charges and the use of curved arrows. *You do NOT have to draw all resonance forms of the intermediate(s).*

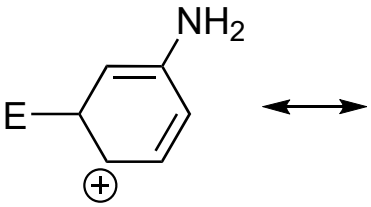


4B. (8 pts) Do you expect the substituent shown to be an ortho/para director or a meta director in the Electrophilic Aromatic Substitution (EAS) reaction? Place your answer in the box provided. **Explain your answer by comparing the stabilities of the two intermediates (sigma complexes) shown below. Be sure to provide additional drawings to support your answer.**



ortho/para or meta director? [ ]

Explain, and use your additional **drawings** below to support your answer.



vs.