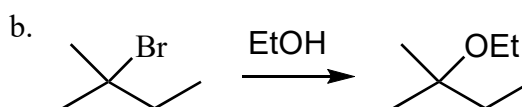
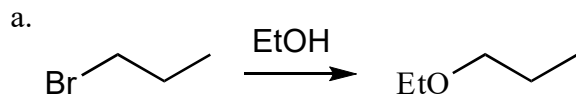
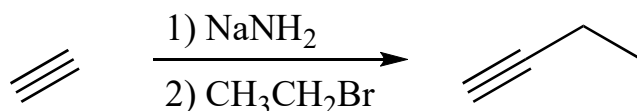


5A) (5 pts) For the given pair of reactions, name the mechanism, indicate which reaction will be faster and briefly explain why. If you expect no significant difference in the reaction rates, say so.



mechanism name? Explain rate:
which is faster
(a, b or neither)?

5B) (6 pts) Provide a complete mechanism for the following two-step reaction. Pay close attention to details including lone pairs, formal charges and the use of curved arrows.



5C) (8 pts) **Provide the missing reagent(s)** needed to achieve each of the following transformations, and **explain WHY** the reagent gives the desired regiochemical outcome. You do not have to provide a complete mechanism, but you must **provide drawings** to support your answers. **No explain = no credit.**

