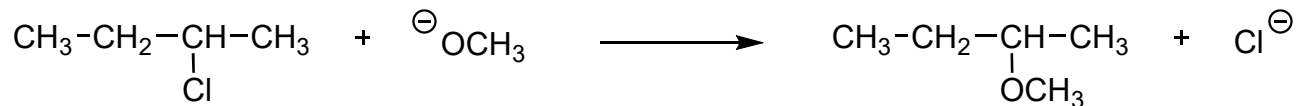
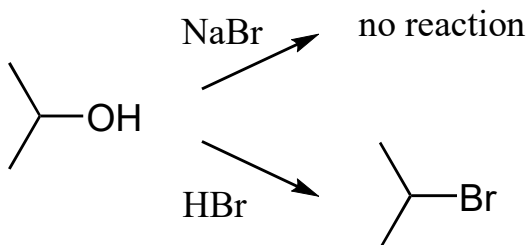


3A) (9 pts) Provide a complete mechanism for the following S_N2 substitution reaction. Pay close attention to details including lone pairs, formal charges and the use of curved arrows. Also, provide structure(s) for the Transition State(s) involved in this mechanism.



Transition State(s):

3B) (5 pts) Explain why an alcohol does not undergo a substitution reaction with NaBr, but does undergo a substitution reaction with HBr. Use **appropriate drawings** to support your answer.



3C) (4 pts) How would you describe the expected stereochemical outcome of each of the following reactions? You do not have to draw the product(s).

