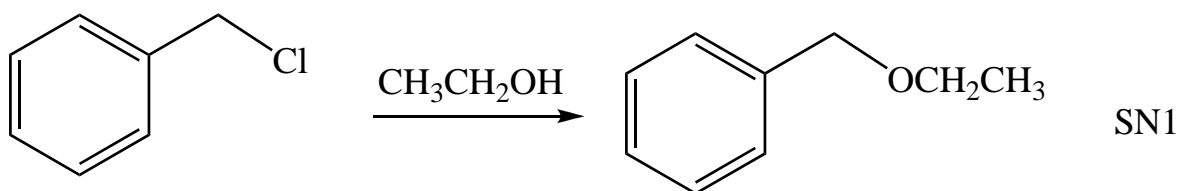
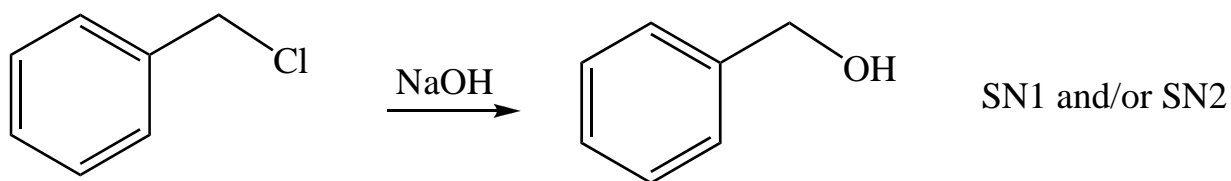
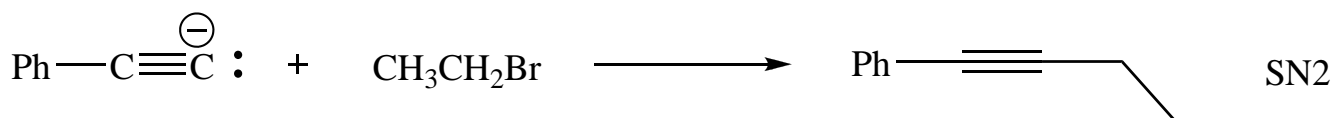
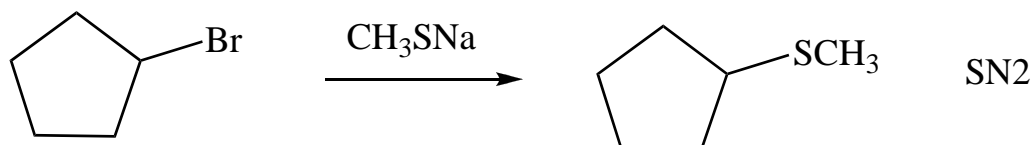
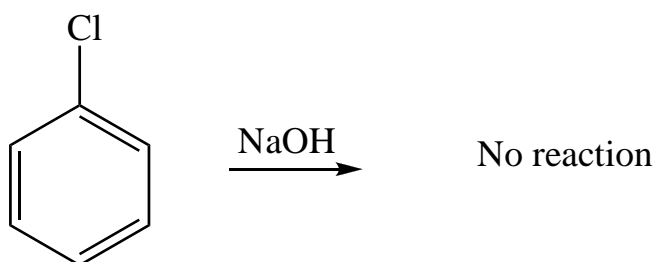
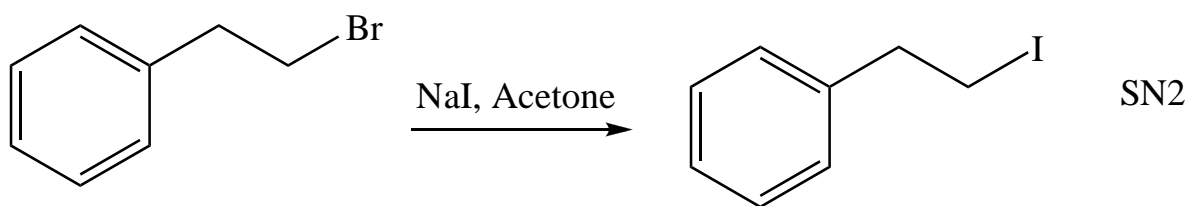
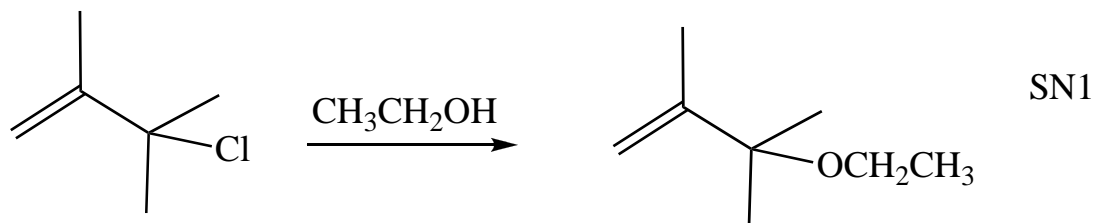


Ex 51 - SN1 or SN2?

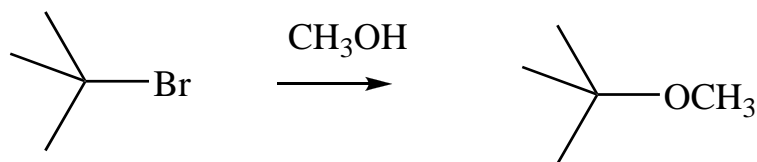
Question One

For each of the following reactions, give the structure of the product and indicate whether the mechanism is likely to be SN1, SN2, both or neither.

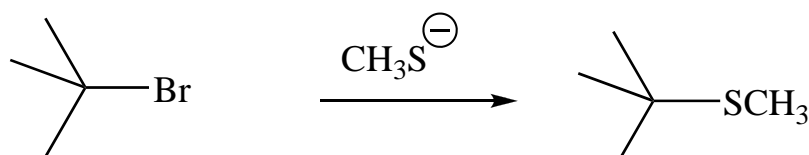
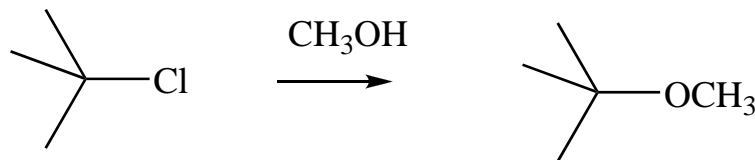


Question Two

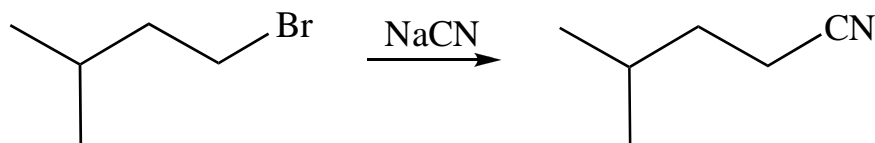
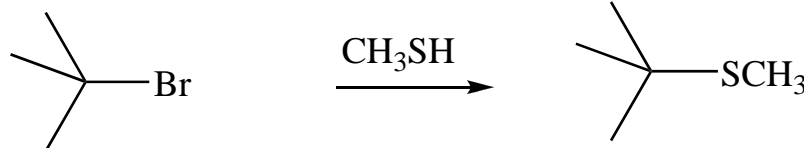
For each of the following pairs, which reaction, if either, will be faster?



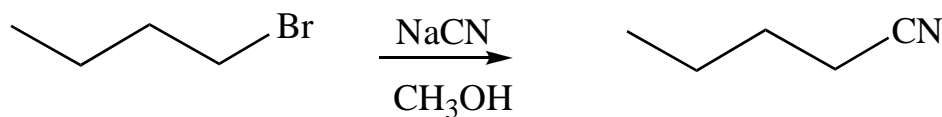
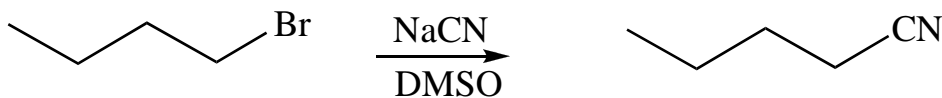
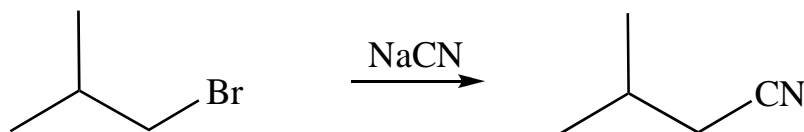
Bromide is the better leaving group. The top reaction will be faster.



3° substrate, so this is an SN1 process. While the anionic sulfide is a better nucleophile, the nucleophile is not involved in the rate determining step of SN1. Both reactions will occur at the same rate.



beta-Branching will retard the SN2 reaction of the lower substrate.



SN2 reactions are faster in polar aprotic solvents like DMSO.