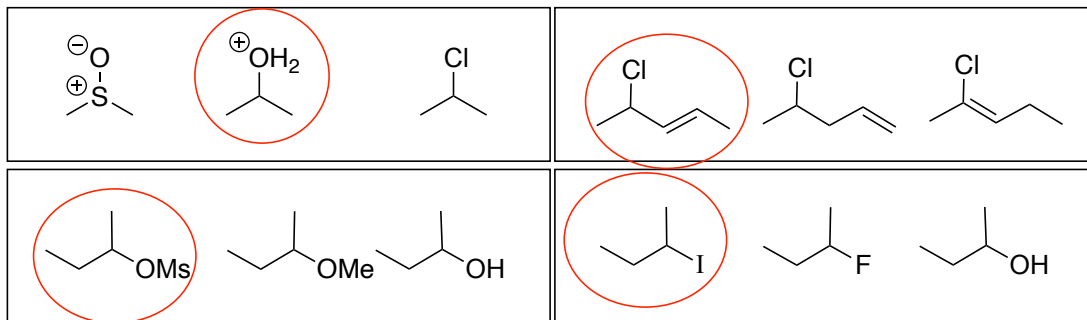
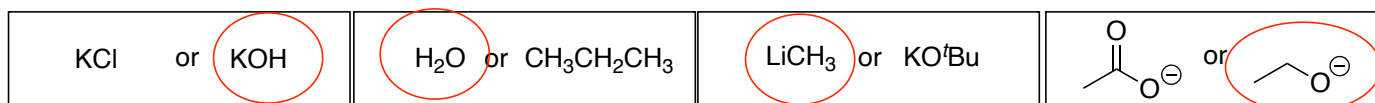


Name: Key

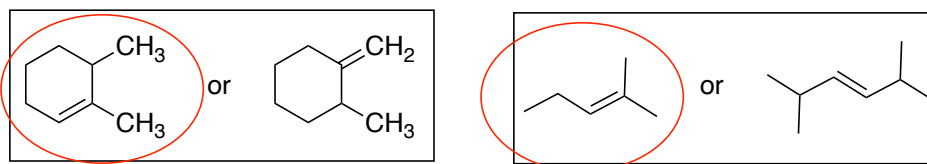
1. (8 points) Circle the compound in each box that has the best leaving group for SN reactions.



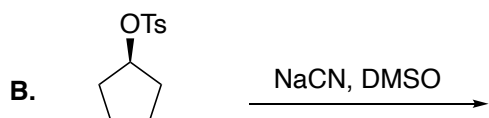
2. (8 points) Circle the substrate in each pair that is the stronger base.



3. (4 points) Circle the substrate in each pair that has the more substituted alkene.

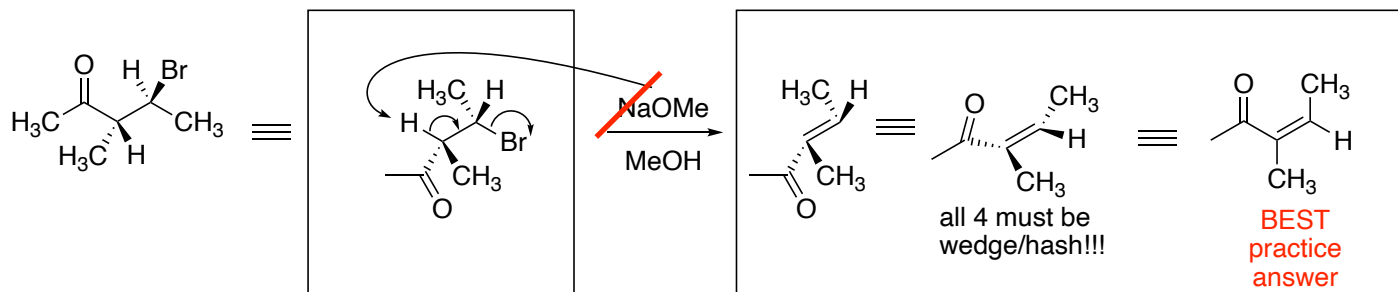


4. (4 points) Give the major product of the following S<sub>N</sub>2 reactions.

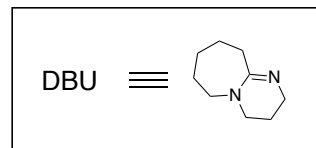
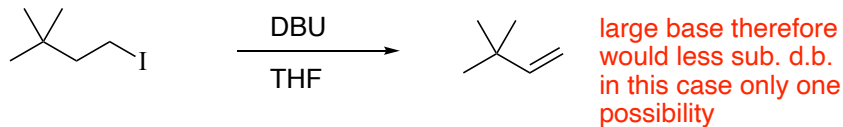
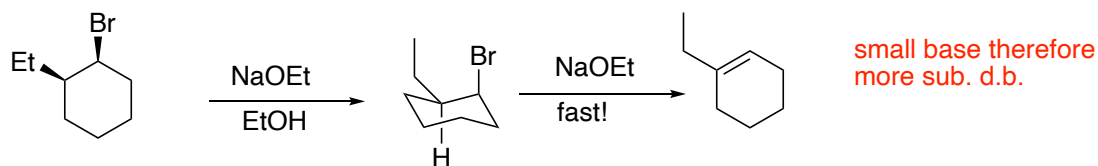


Not a stereocenter so this is fine but it is SN2 and normally would be hashed (i.e. down)

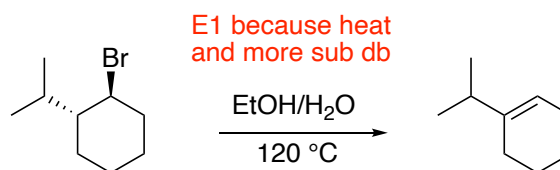
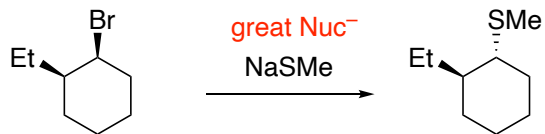
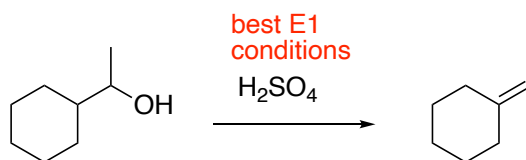
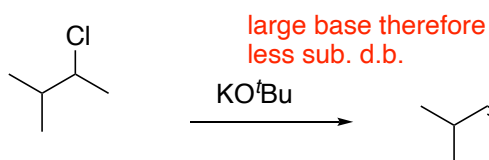
5. (6 points) Draw the conformation that leads to the major product of the following E2 reaction then draw the major product of the reaction. Note the majority of points (4) will be associated with the conformation.



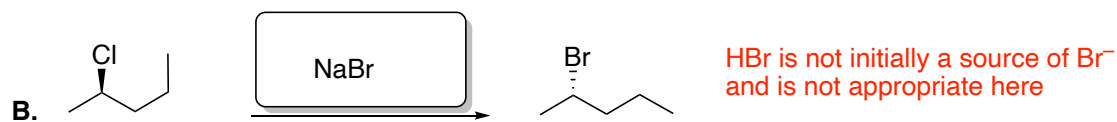
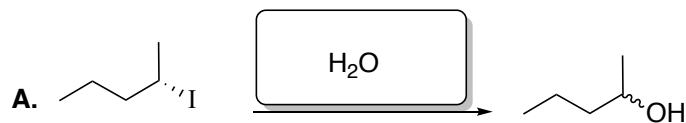
6. (4 points) Draw the major organic products formed from the following elimination reactions.



6. (8 points) Provide the major organic products for the following 4 reactions. Give the appropriate stereochemistry where necessary



7. (4 points) Give a reagent that would provide the indicated product in the following reactions.



8. (6 points) Provide a detailed curly arrow mechanism for the following reaction.

