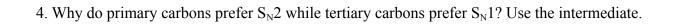
CHEM 2300 Session 7

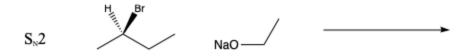
1. Label every stereocenter and give the absolute configuration.

2. Draw the Fischer Projection into wedge-dash or the other way around.

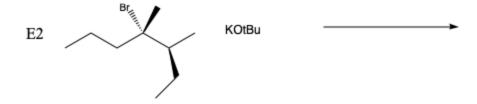
3. Why do you get only one product for $S_{\scriptscriptstyle N}2$ and two products for $S_{\scriptscriptstyle N}1?$ Use the intermediate.



5. Draw the mechanism and the product(s) for each reaction. The type of reaction is given.



$$S_{N}1$$
 O_{OH}



6. Why do we want a strong nucleophile/base for $S_{\rm N}2$ and E2 but don't need that for $S_{\rm N}1$ and E1 but we need a good leaving group for those?

7. Give the major product(s) for the following reactions.



$$\begin{array}{c|c} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & \\ & & \\ & & \\ & & \\ & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ &$$

8. Synthesis the following molecule starting with a three carbon alkene.