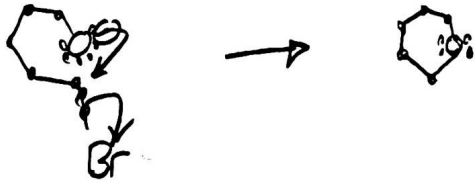


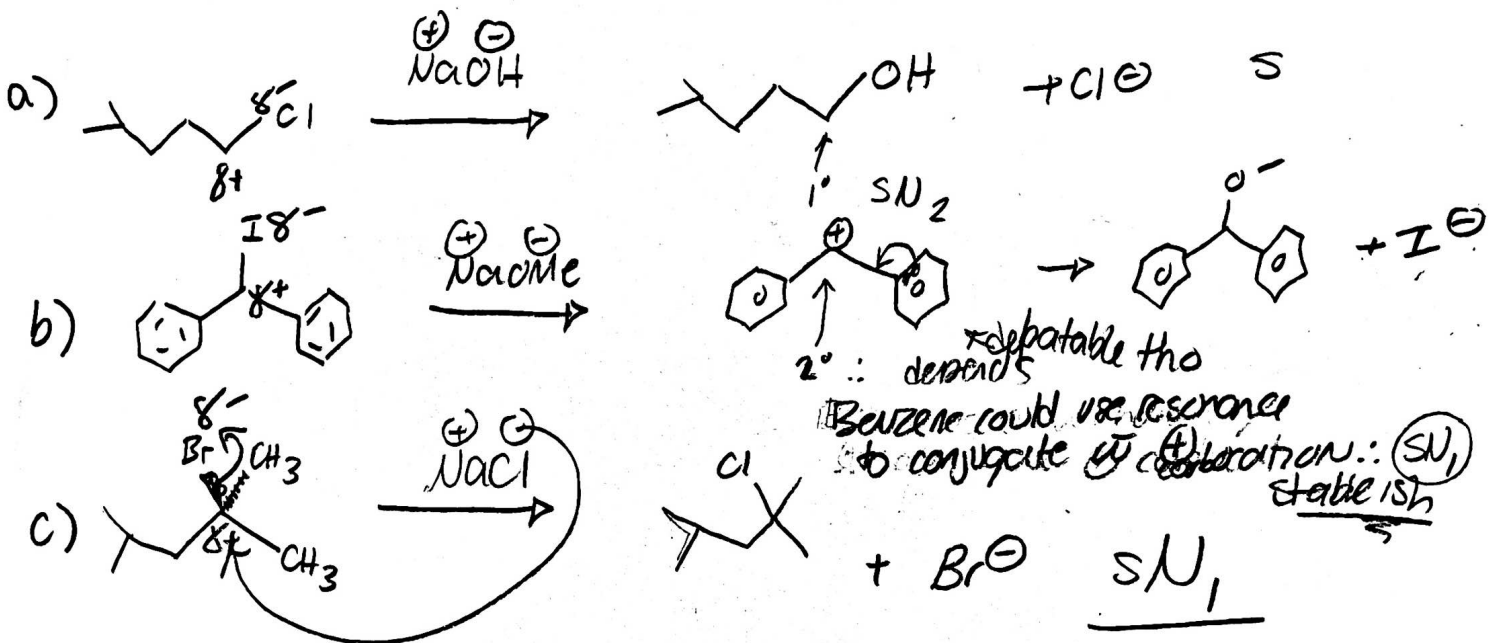
① The following reaction yields the product shown
draw the reaction arrows



2 IN 2 OUT (-) attacks δ^+ carbon, Br is leaving group.

② Classify the following reactions as

SN₁ OR SN₂ and draw the products $\left. \begin{matrix} 3^\circ \\ SN_1 \end{matrix} \right\} \begin{matrix} 1^\circ \\ SN_2 \end{matrix}$



③ for the last structure 2 c) is there a chiral center present? why or why not? NO
need 4 different groups

