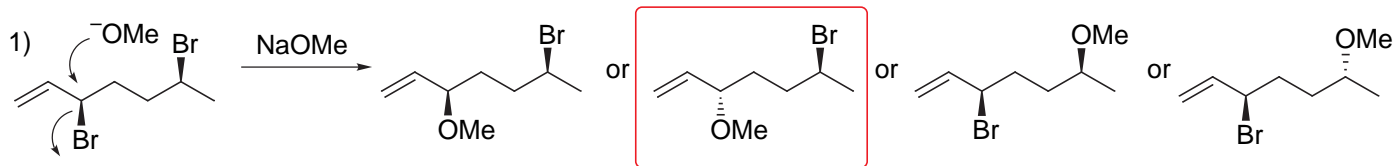
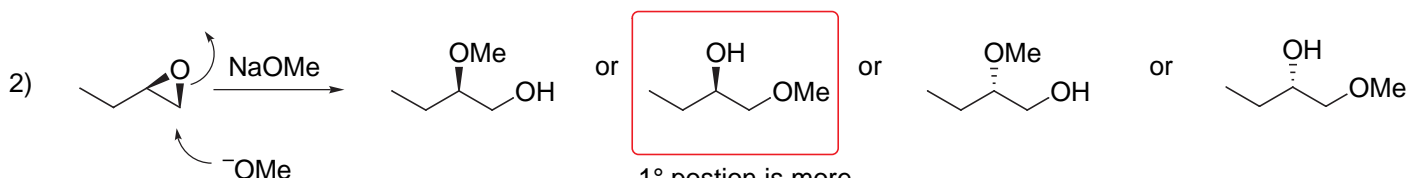
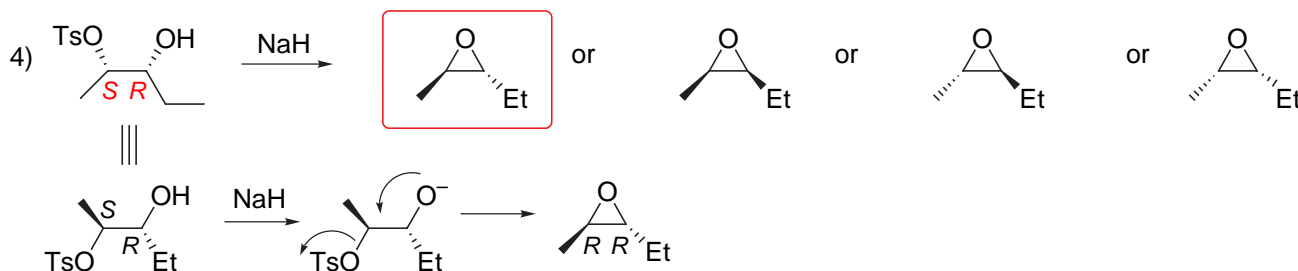
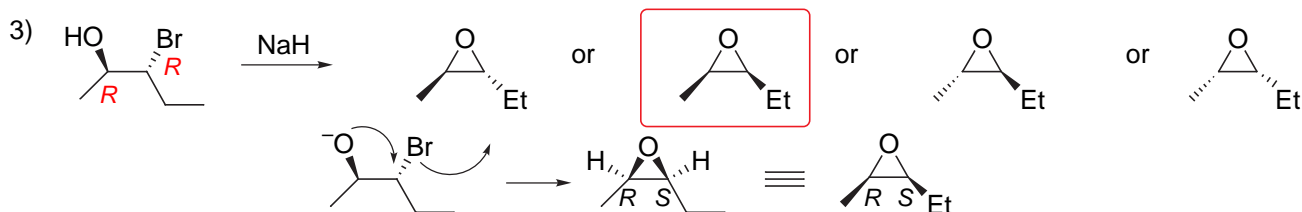


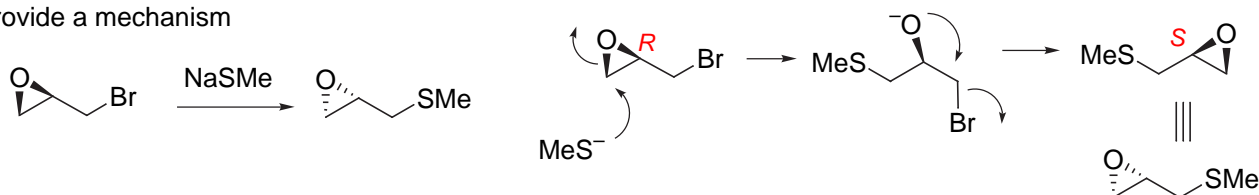
For 1-4, Circle the correct product. Provide a mechanism that explains your choice

allylic position is more reactive  
reaction proceeds with inversion

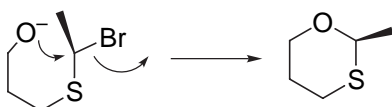
1° position is more reactive



5) Provide a mechanism

6) The reaction below is an  $S_N2$  process. However, the absolute configurations of the starting material and products are both R. Explain. (Hint: this is a trick question).

the mechanism is straightforward



the 'trick' is in the assignments of stereochemistry. In the starting material, sulfur is the group of second highest priority. In the product, the sulfur has the highest priority. The apparent retention of stereochemistry is a result of a priority change, not a change in mechanism.