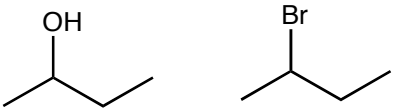
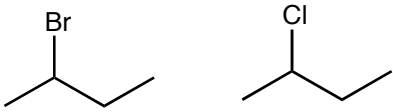
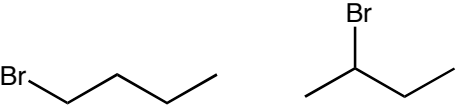
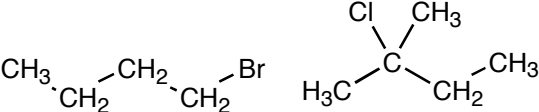
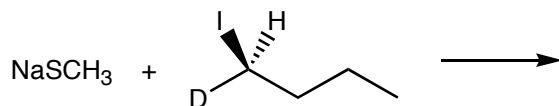


1. For each pair of molecules,  
 a. (8 pts. ea.) identify the molecule that would be the better  $S_N2$  substrate.  
 b. (8 pts. ea.) explain your choice

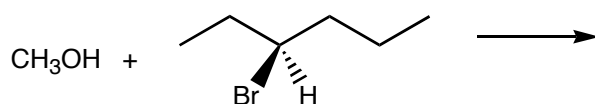
i. 	ii. 
iii. 	iv. 

2. (12 pts ea.) Predict the products of the following reactions. (8 pts ea.) Remember to consider the stereochemistry of the product(s).

a.  $S_N2$



b.  $S_N1$



3. (20 pts.) Draw a mechanism that can account for the product in the following  $S_N1$  reaction.

