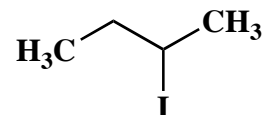
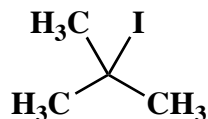
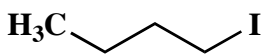


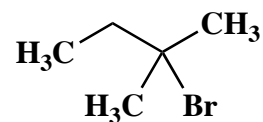
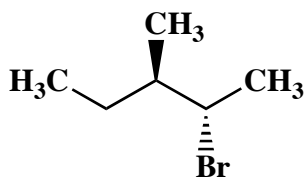
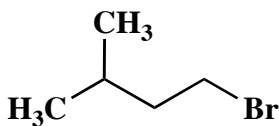
Week 8 Group Questions

1. Circle the appropriate compound for each of the following questions. For each question, describe your reasoning with a one-sentence statement.

a. Which of the following compounds is the best S_N2 substrate?

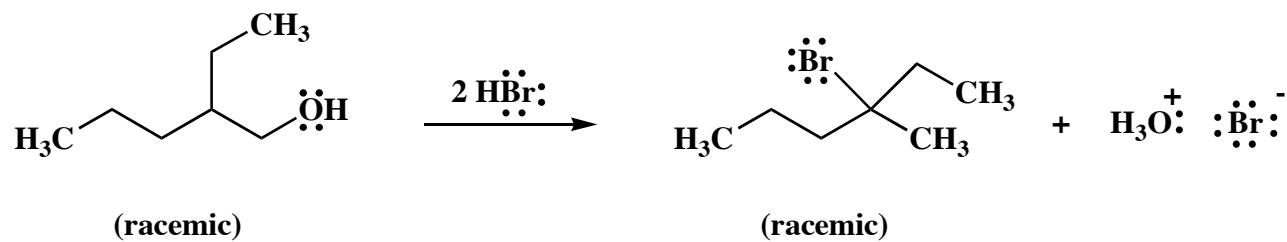


b. Which of the following compounds is the best S_N1 substrate?



2. Explain clearly why an S_N2 reaction proceeds more rapidly in a polar, aprotic solvent rather than in a polar, protic solvent. Draw a reaction-energy diagram (graph of reaction coordinate versus potential energy) to illustrate your answer.

3. Draw the mechanism of the following reaction, using the curved-arrow notation to indicate the reorganization of electron density. Show **all** intermediates, lone pairs, formal charges and countercharges where appropriate.



Please bring your set of molecular models to class, next week.