

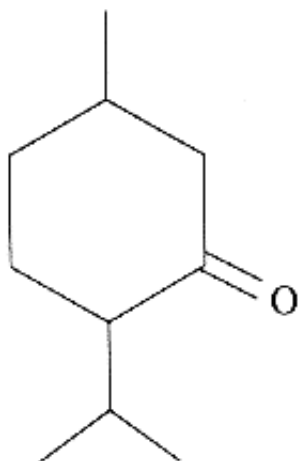
Chemistry 3311-100
Organic Chemistry/Dr. Barney Ellison

Thursday: Feb. 18 @ 19:00 → 21:00/1st Exam/Math 100

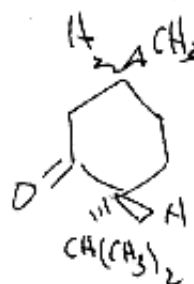
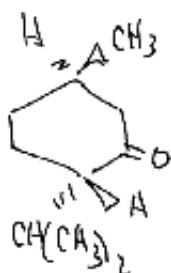
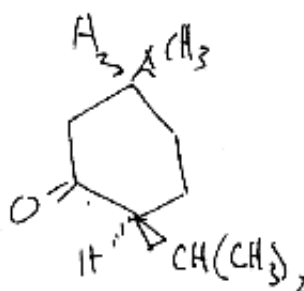
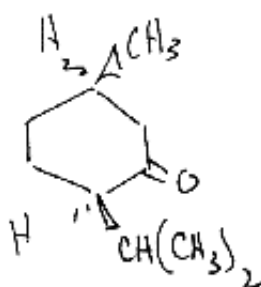
Name: Key (please print)

1. 2. 3. 4. 5. 6. 7. 8. Total _____

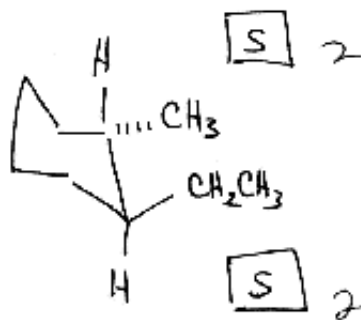
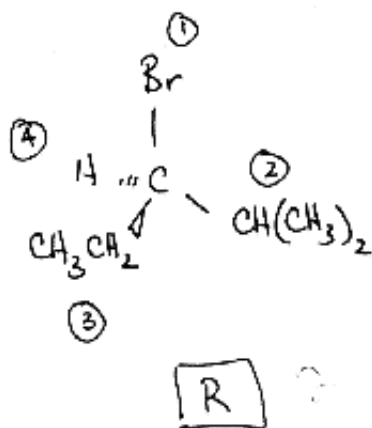
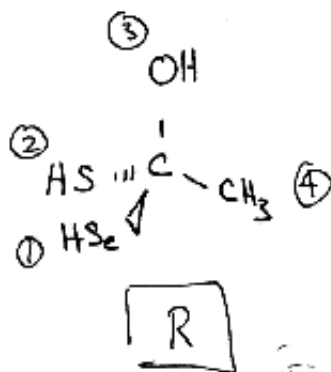
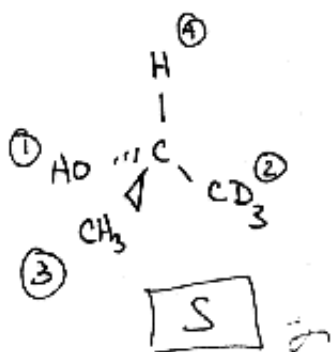
1. (20 pts) Draw all the stereoisomers of:



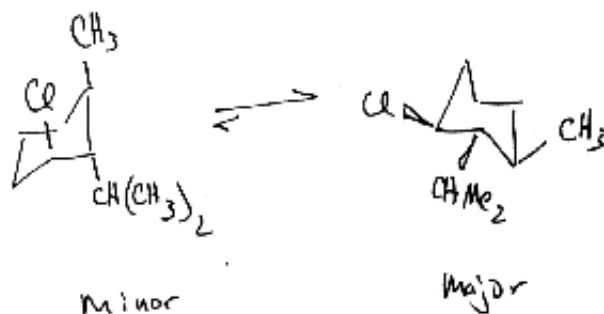
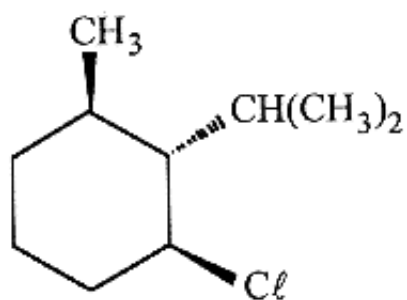
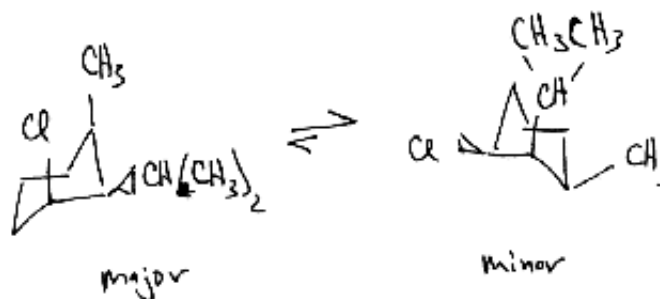
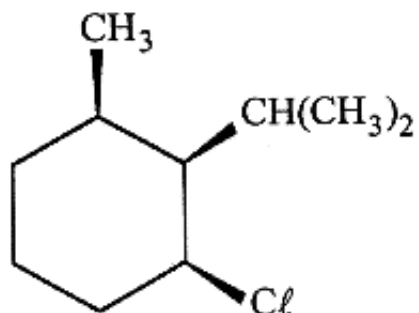
Mirror

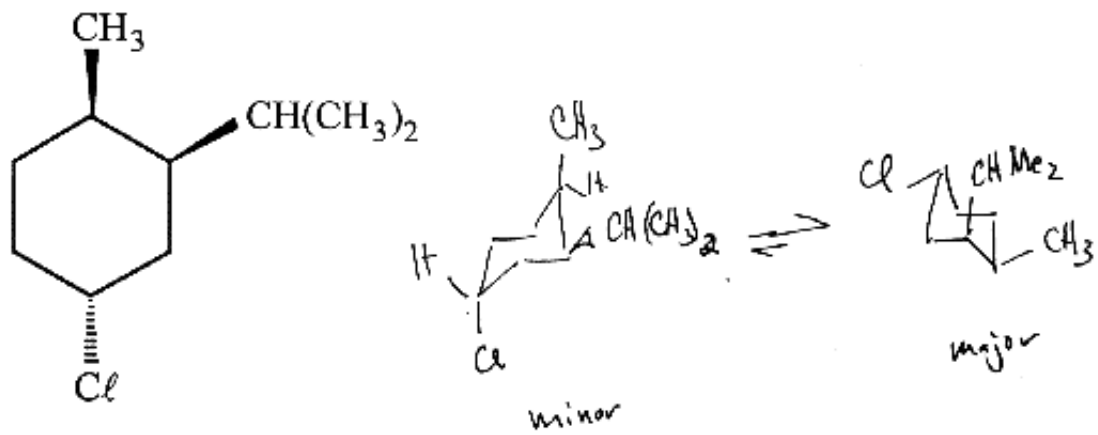
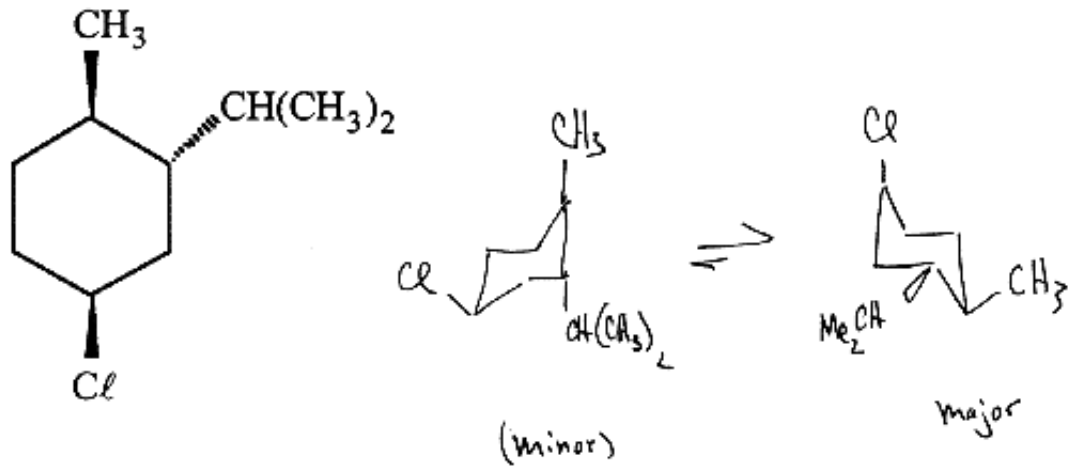


2. (10 pts) Label each each stereogenic center as R or S.

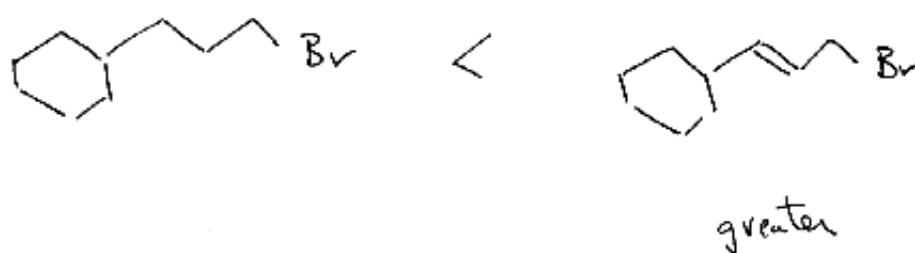


3. (20 pts) Draw both chair forms of the following cyclohexanes. Indicate the more stable chair form in each case.

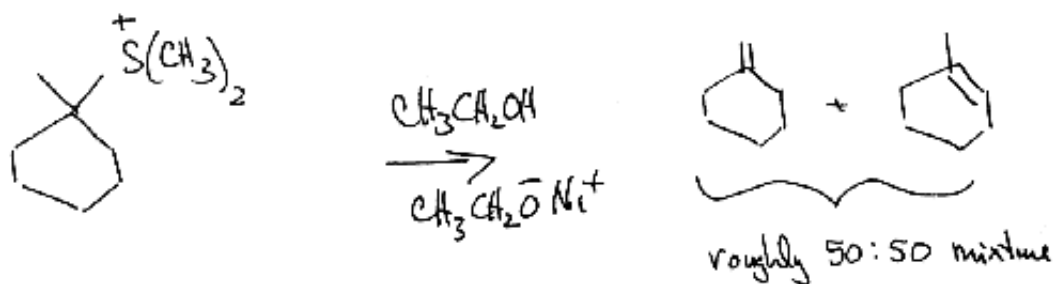
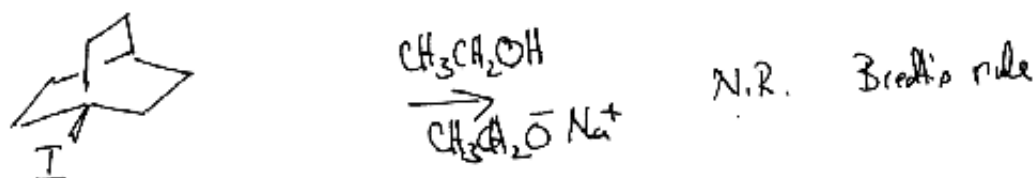
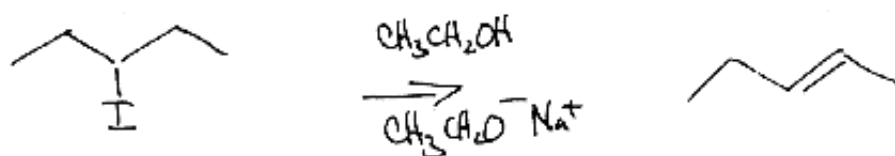
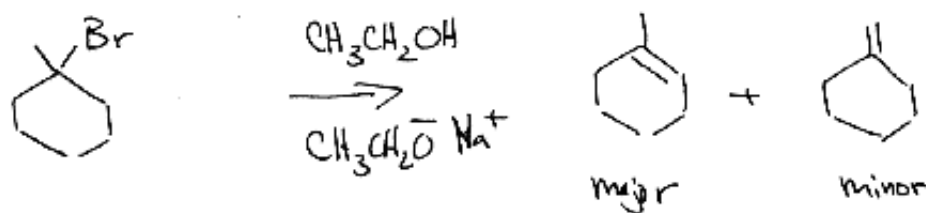
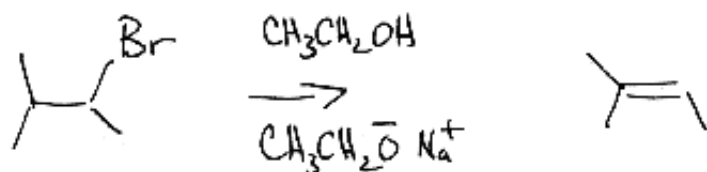




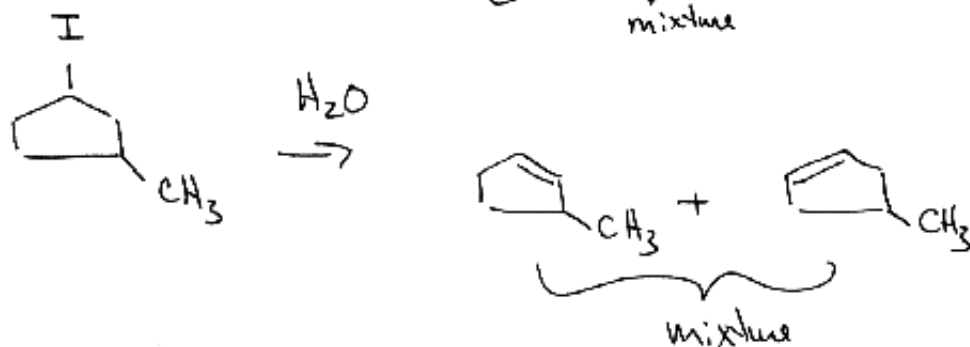
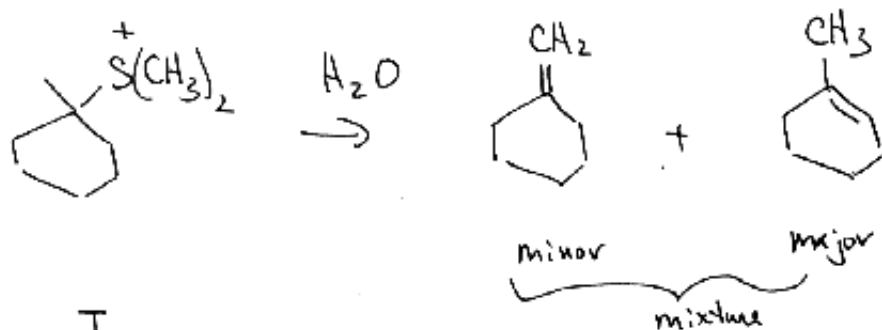
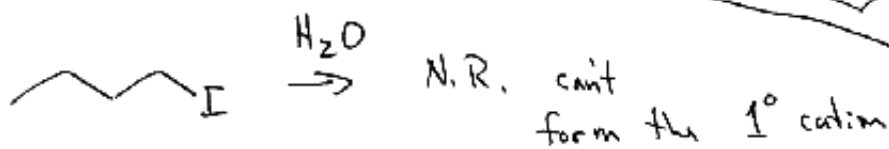
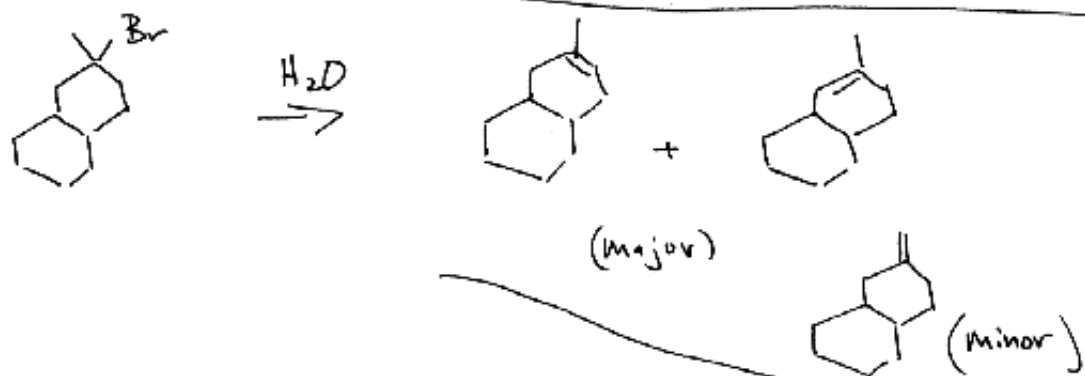
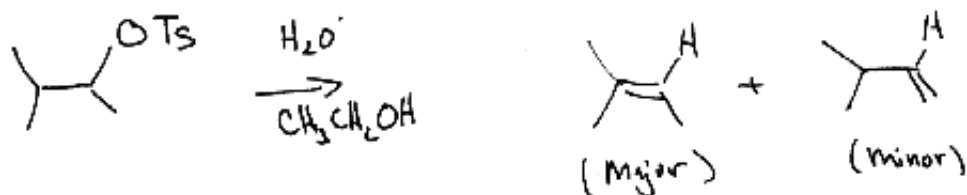
4. (10 pts) For each of the pairs of compounds, rank the molecules in order of rate of reaction in the S_N2 process.



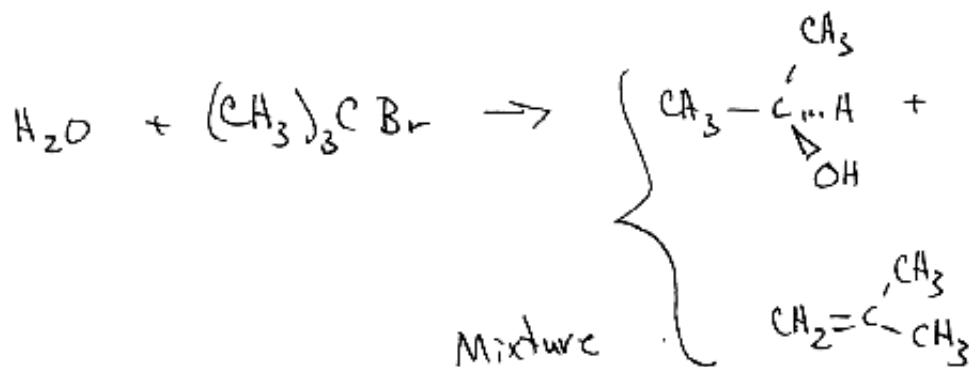
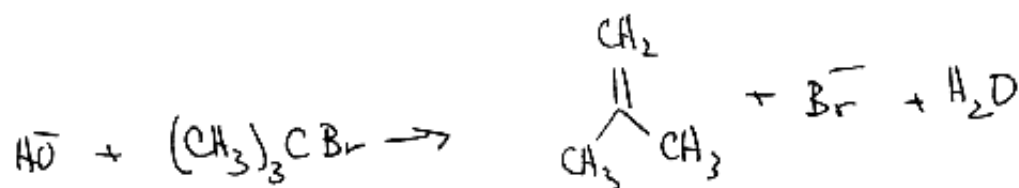
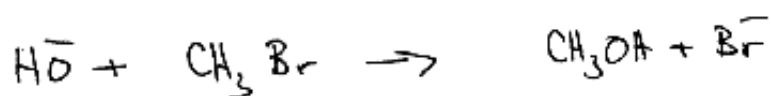
5. (10 pts) Predict the products of the following E2 reactions. Indicate the major product.



6. (10 pts) Predict the products of the following E1 reactions. Indicate the major product.



7. (10 pts) Predict the products of the following reactions.



8. (10 pts) Predict the products of reaction of the following compounds with $(\text{CH}_3)_3\text{CO}^- \text{Na}^+$

