# Chem 4lc Quiz 4 <br> Stoltz, Spring 2005 <br> May 8, 2005 

Predict the products (if any) of the following reactions: (5 points each)
1.

2.

3.

3. mild $\mathrm{H}_{3} \mathrm{O}^{+}$work-up




draw all four possible stereoisomers
4.


## Bonus (5 points)

Predict the two major stereoisomeric products in problem 3 based on the discussions we had in class of closed transition states. What is the ration of these products formed in the reaction?



1:1

