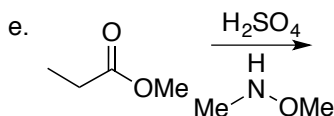
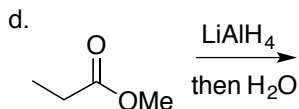
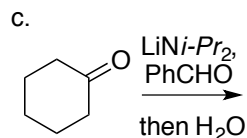
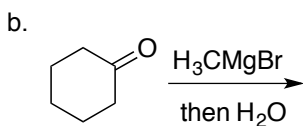
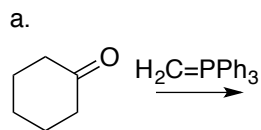
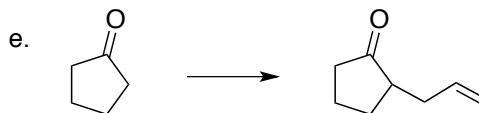
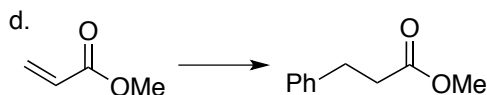
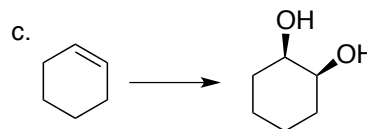
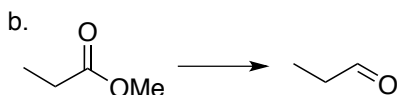
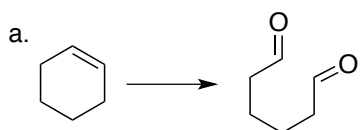


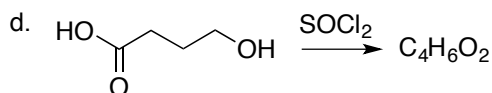
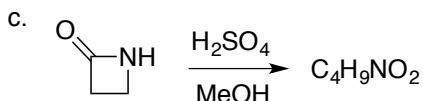
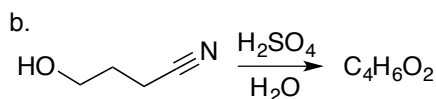
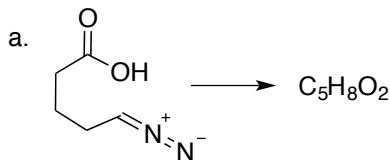
1. Show the products of 4 of the following 5 reactions (2.5 points each, 10 points total). There will be no partial credit to this question, so chose wisely.



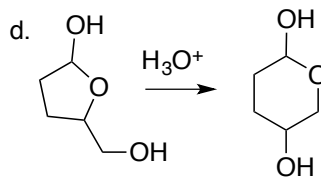
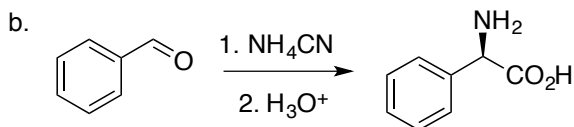
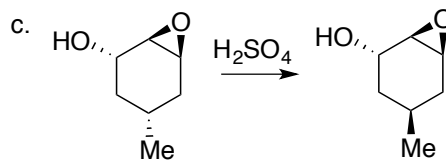
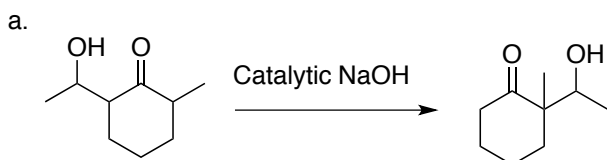
2. Show the reagents necessary to carry out 4 of the following 5 reactions (2.5 points each, 10 points total). There will be no partial credit, so chose wisely.



3. Predict the products of 3 of the following 4 reactions, and use a mechanism to support your answer (10 points each, 30 points total).



4. Show a mechanism for 3 of the following 4 transformations (10 points each, 30 points total)



5. Propose a series of reactions for carrying out the following transformation, starting from isopropanol and any other carbon-based reagents you need (10 points each, 20 points total)

