Name:_____

1. Provide the major product for the following reactions. (4 points)

i. OH

1. Hg(OAc)₂ →

2. NaBH₄

ii.

$$\begin{array}{c} \text{OH} \\ \text{H}_{3}\text{C} \\ \end{array} \begin{array}{c} \text{Ti}(\text{O}^{\text{i}}\text{Pr})_{4} \\ \text{^{t}}\text{BuOOH} \\ \hline \\ \text{(+)-DET} \\ \end{array}$$

2. Provide the reagents for the following reaction. (1 point)

3. Provide the starting material for the following reaction. (1 point)

H01,10H

- 1. NaH
- 0,,,0

- 4. a. Provide a mechanism for the following reaction.
 - b. Briefly explain why the indicated stereocenter (*) undergoes inversion of configuration in this reaction. (4 points)

Me SNZ-like opening of pretonated epoxide

Me O - Me OH