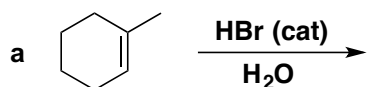


CHE 310 – 002 & 003
Lecture Homework #27

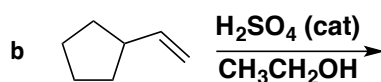
Section 002 Due: Wednesday, April 3, 2019, 9:00 am.

Section 003 Due: Wednesday, April 3, 2019, 10:00 am.

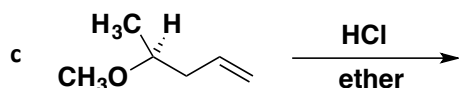
1. Provide the major product(s) Clearly indicate the stereochemistry in your structures where appropriate. Where more than one stereoisomer is formed you only need to draw one of the stereoisomeric products. Other stereoisomers should be indicated by writing, “+ *enantiomer*” or “+ *diastereomer*”, as appropriate. Check the boxes on the right to indicate whether the reaction product solution would be optically active ($[\alpha]_D \neq 0$) or not optically active ($[\alpha]_D = 0$). Under the check boxes indicate why that box was chosen (possible answers are: single enantiomer, diastereomers, racemic, meso and achiral)



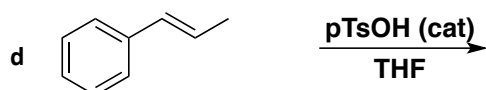
$[\alpha]_D \neq 0$ $[\alpha]_D = 0$



$[\alpha]_D \neq 0$ $[\alpha]_D = 0$



$[\alpha]_D \neq 0$ $[\alpha]_D = 0$



$[\alpha]_D \neq 0$ $[\alpha]_D = 0$

(Look up the structure of pTsOH and THF on line)

2. Provide the mechanism for reactions **1b** and **1c**.

Make sure each mechanism includes the following:

- Proper arrows to show all electron motion;
- The structure of all intermediates *including stereochemistry* where appropriate.