

Course Name: CHEM 3013: Organic Chemistry Professor/Teacher: Dr. Bolliger

Title of Homework: Homework 4

Name:_____English Name:____

SWJTU ID: _____ OSU ID: _____ Date: Tuesday, 18 May 2021

Question 1 (6 points)

What are the major products of these reactions? Draw a detailed mechanism for their formation.

Mechanism:

$$\begin{array}{c}
OH \\
H_2SO_4, H_2O
\end{array}$$

Mechanism:

Mechanism:

$$\begin{array}{c|c} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & \\ & & \\ &$$

Mechanism:





Question 2 (2 points)

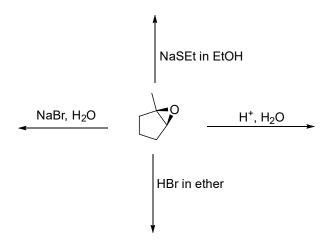
Suggest starting materials for these reactions





Question 3 (2 points)

Draw the products of these reactions. Pay attention to stereochemistry.







Question 4 (5 points)

Complete the following reaction scheme. Pay attention to stereochemistry. If more than one stereoisomer is formed in a reaction, please show both.

