

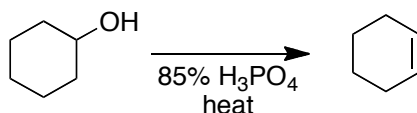
NAME: Answer Key

TA: Robert

Section: 1E

Quiz #1

1. Today's lab consists of eliminating a secondary alcohol in cyclohexanol to synthesize cyclohexene. Draw the starting material (2pt), the product (2pt), reagents needed to perform this elimination (2pt).



2. Why are there only 3 peaks present in the ^{13}C and ^1H NMR spectrum for cyclohexene at room temperature? (4pts)
A: There are only three magnetically unique carbons and protons due to symmetry.
3. What is the purpose of heating the reaction and collecting the product? (2pts)
A: There is a two fold reason for heating: (1) heat drives the reaction forward and (2) to remove the product from the reaction mixture, which also drives the reaction forward due to Le Chatelier's principle.
4. Why do we use anhydrous sodium sulfate during extraction? (3pts)
A: Anhydrous sodium sulfate is a drying agent that removes water from the organic layer.
5. Name the following lab equipment (5pts):

