Organic 2

Amorde

Summer 09

Bonus #1

In the lab, the following cyclohexane was treated with sodium methoxide in methanol and the reaction produced at least six different products!!

- A. What are the six different products?
- B. How could you determine the structures for all six compounds?
  - a. Give appropriate instruments to use.
  - b. Show in detail the differences you would expect in each spectrum.
  - c. If you can find it, give the spectrum for each product, if not draw what you expect the spectrum would look like.
  - d. Finally, what would the starting material look like?

$$H_3C$$
 $CH_3$ 
 $H_3C$ 
 $Br$ 
 $HO-CH_3$ 
 $Na \overset{-}{O}-CH_3$