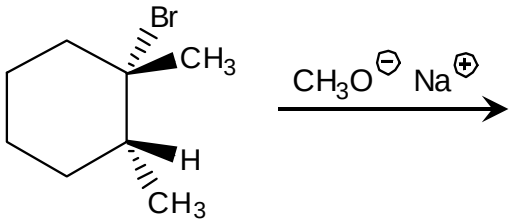
Chemistry 2331H Wednesday, October 16

In-Class Exercise:
E2 Reactions with Multiple Products

1. E2 elimination of 1-bromo-*trans*-1,2-dimethylcyclohexane (shown below) should yield three different alkene products, by deprotonation of three different H's in the starting material.



What are the structures of the three E2 products? Which should be major and which minor?

2. By contrast, E2 elimination of 1-bromo-*cis*-1,2-dimethylcyclohexane gives only two alkene products. Which product from problem (1) would not be produced here, and why?