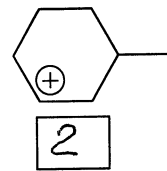
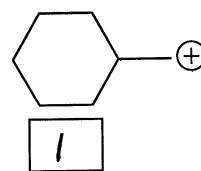
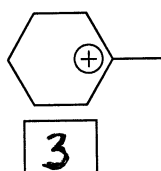
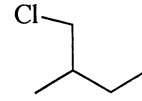
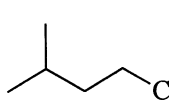
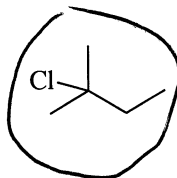
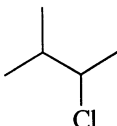
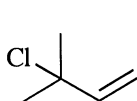
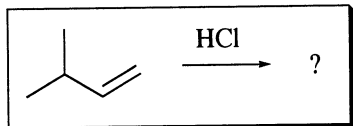


Quiz 5 Key

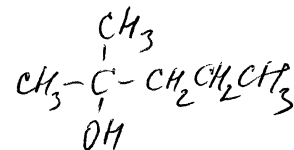
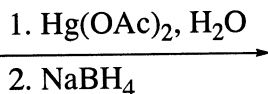
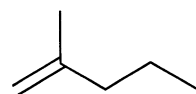
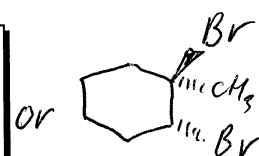
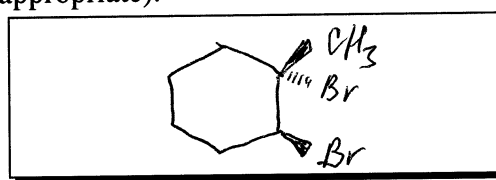
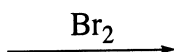
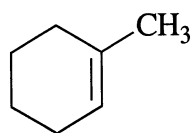
1. (3) Rank the **carbocations** in order of increasing stability (least stable = 1; most stable = 3). Place the number corresponding to the carbocation's relative stability in the box below the structure.



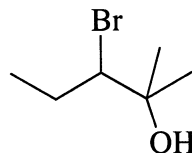
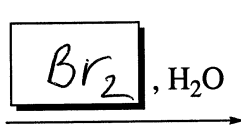
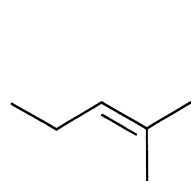
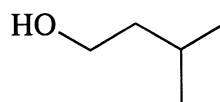
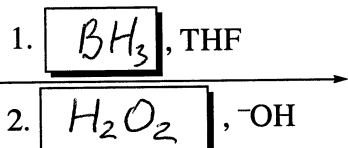
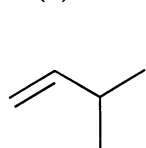
2. (4) What product is formed via a **hydride shift** during the following reaction (circle the correct structure):



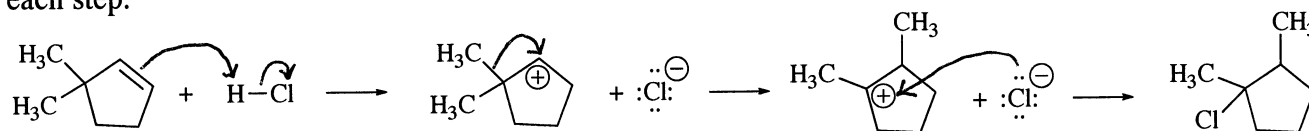
3. (8) Draw the structure of the main product for each the following reactions (make sure to show the correct **stereochemistry** for the substituents when appropriate).



4. (6) Write a reagent (one molecule in each box) that is required to perform the following reactions:



5. (4) For the reaction mechanism shown below, use curved arrows to show the flow of electrons in each step:



Overall Score: 25