Quiz #3

1. (5 points)

Draw the mechanism of the following reaction, using the curved-arrow notation to indicate the reorganization of electron density. Denote all intermediates, lone pairs, nonzero formal charges, countercharges, and reversibility or nonreversibility. Finally, state clearly why the product 1 is enantiomerically pure.

![Mechanism Diagram]

2. (5 points)

Draw the structure of the expected major organic product for the following reaction sequence.

![Reaction Sequence Diagram]