1. (Klein 12.14) Draw the expected product for each of the following reactions.
2. Draw a stepwise mechanism for the following reaction.

3. Create a multi-step synthesis to convert the starting material on the left to the product on the right.
4. (Klein 11.106) Predict the product and draw an arrow-pushing mechanism for the following reaction.
5. (Klein 11.116) For each of the following reactions, fill in the box with the major product(s).

\[
\begin{align*}
\text{1) OsO}_{4} & \quad \text{2) H}_2\text{O}_2 \\
\text{1) O}_3 & \quad \text{2) DMS}
\end{align*}
\]
6. Propose a synthesis for the product from the starting material given below.