Oxymercuration - Reduction

\[ \text{Hg(OAc)}_2, \text{H}_2\text{O}_2, \text{THF} \]

\[ \text{NaBH}_4, \text{NaOH} \]

Hydroboration - Oxidation

\[ \text{BH}_3, \text{THF} \]

\[ \text{H}_2\text{O}_2, \text{NaOH} \]

Oxymercuration - Reduction

\[ \text{Hg(OAc)}_2, \text{H}_2\text{O}, \text{THF} \]

\[ \text{HgOAc} \]

\[ \text{Hg}^\circ + \text{Hg}^{(12)} \]

\[ \text{mercury is replaced by a hydride from NaBH}_4 \]

* You should be able to draw the mechanism for step 1 and the product of step 2. You are not responsible for drawing the mechanism of step 2.
Submit a *Single-sided Copy* to the Office

**DO NOT STAPLE**

concerted - all at once

\[
\text{HO} - \text{B}^\circ - \text{OH} + 3 \xrightarrow{\text{NaOH}} \xrightarrow{\text{H}_2\text{O}_2} \xrightarrow{\text{Step 2}} \text{Steric hindrance}
\]

- Boron goes where there's more room