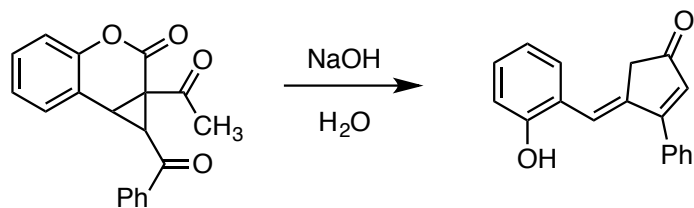
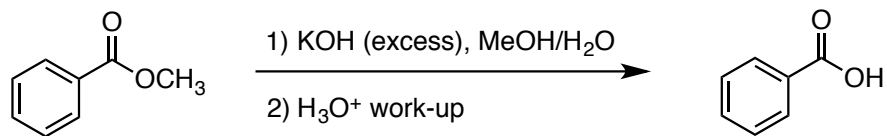


**CHEM 633**  
**Arrow-Pushing Mechanisms**

Please draw reasonable arrow-pushing mechanisms for the following transformations. For each step, describe the FMO interaction that you are illustrating with your arrow-pushing.



*J. Am. Chem. Soc.* **1960**, *82*, 439.