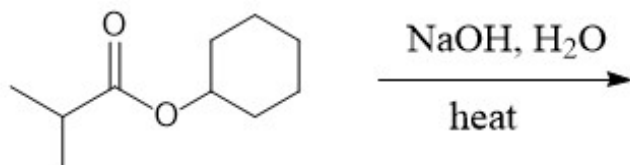


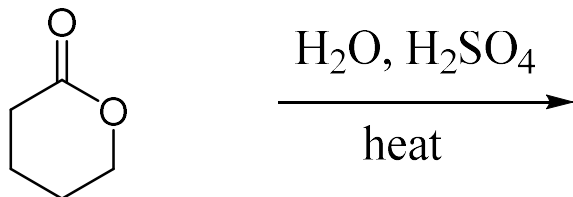


1 Predict the major product and draw the mechanism.

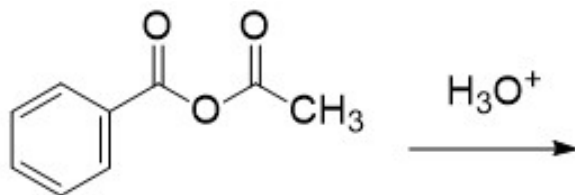


2

3

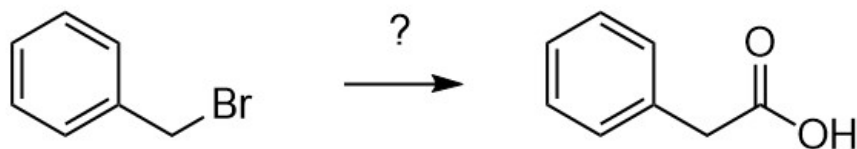


4



5

Which of the following sets of reagents would accomplish the given transformation?



- I. 1) Mg ; 2) CO_2 ; 3) H_3O^+
- II. 1) NaCN ; 2) H_3O^+ , heat
- III. 1) Mg ; 2) $\text{H}_2\text{C=O}$
3) H_3O^+ ; 4) $\text{CrO}_3, \text{H}_2\text{SO}_4$

6

Predict the major product.

