

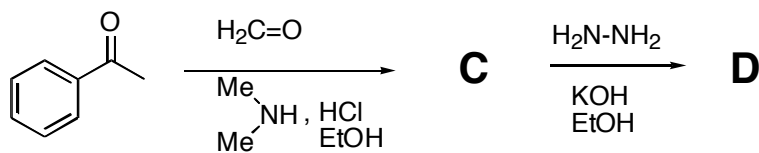
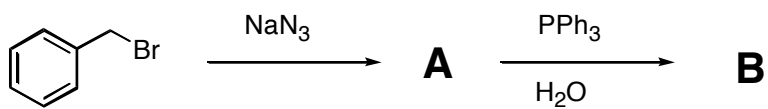
Chem 332  
Exam 1  
March 9, 2003  
Prof Fox  
50 minutes  
100 points

Show your work in detail

Write your name on every page

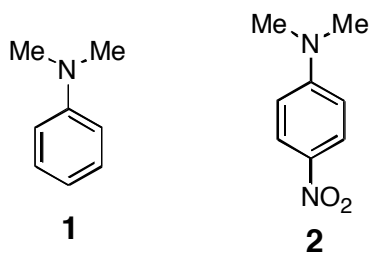
Name\_\_\_\_\_

1) Provide structures of **A**, **B**, **C**, and **D**. Mechanisms are not needed. 3 points for each correct answer



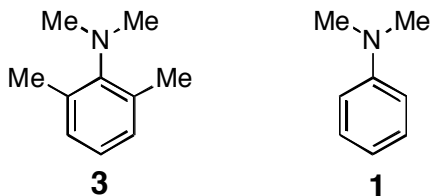
2a) Compound **1** is a stronger base than **2**. Provide a detailed but brief (<25 words) explanation. Use chemical structures to support your argument

(10 points)

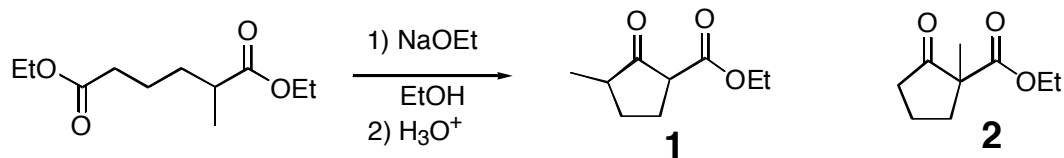


2b) Compound **3** is a stronger base than **1**. Provide a detailed but brief (<25 words) explanation. Use chemical structures to support your argument

(10 points)



3) Circle the correct answer (2 points). Provide a clear and concise explanation (18 points). Use chemical structures to support your assignment



a. Only product **1** will be formed

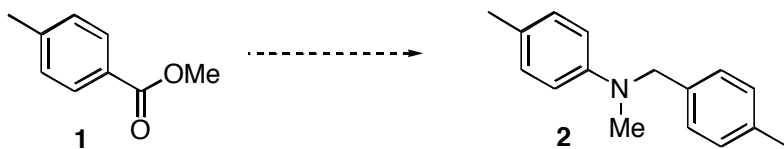
b. Only product **2** will be formed

c. Both products will be formed, but **1** will be the major product

d. Both products will be formed, but **2** will be the major product

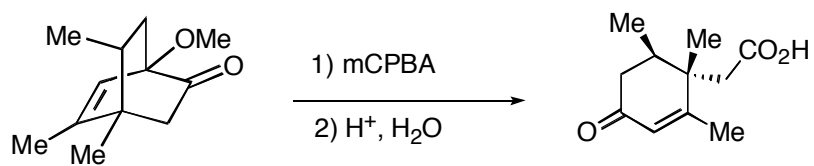
e. Both products will be formed in equal amounts

- 4) Outline a multistep synthesis of **2** using **1** and any other starting materials that contain 3 carbons or less. Reagents (e.g.  $\text{PPh}_3$ ) may contain more than 3 carbons. (24 points)



5) Provide a detailed, arrow pushing mechanism

(24 points)



Scratch paper

Scratch paper