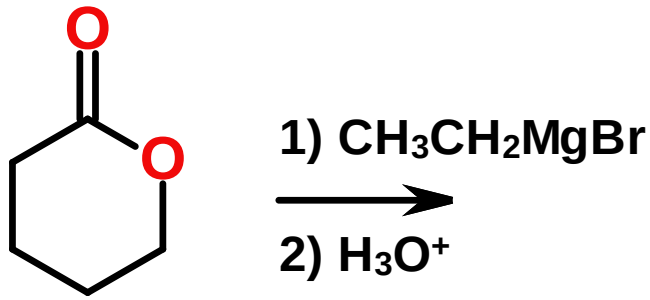
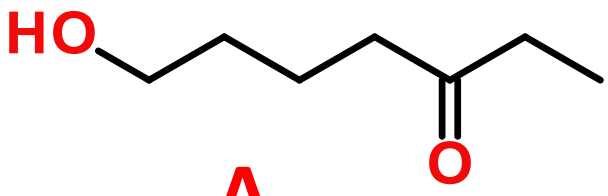
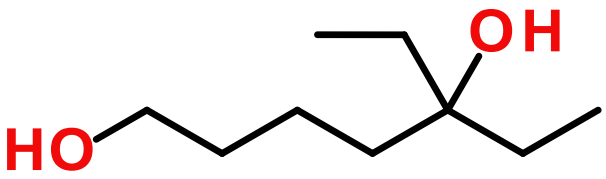
Give the major organic product(s) of the following reaction.



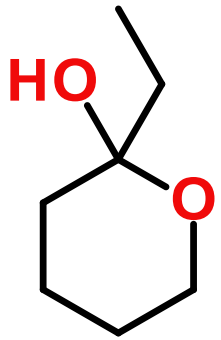
2016-09-26 Q1



A



C



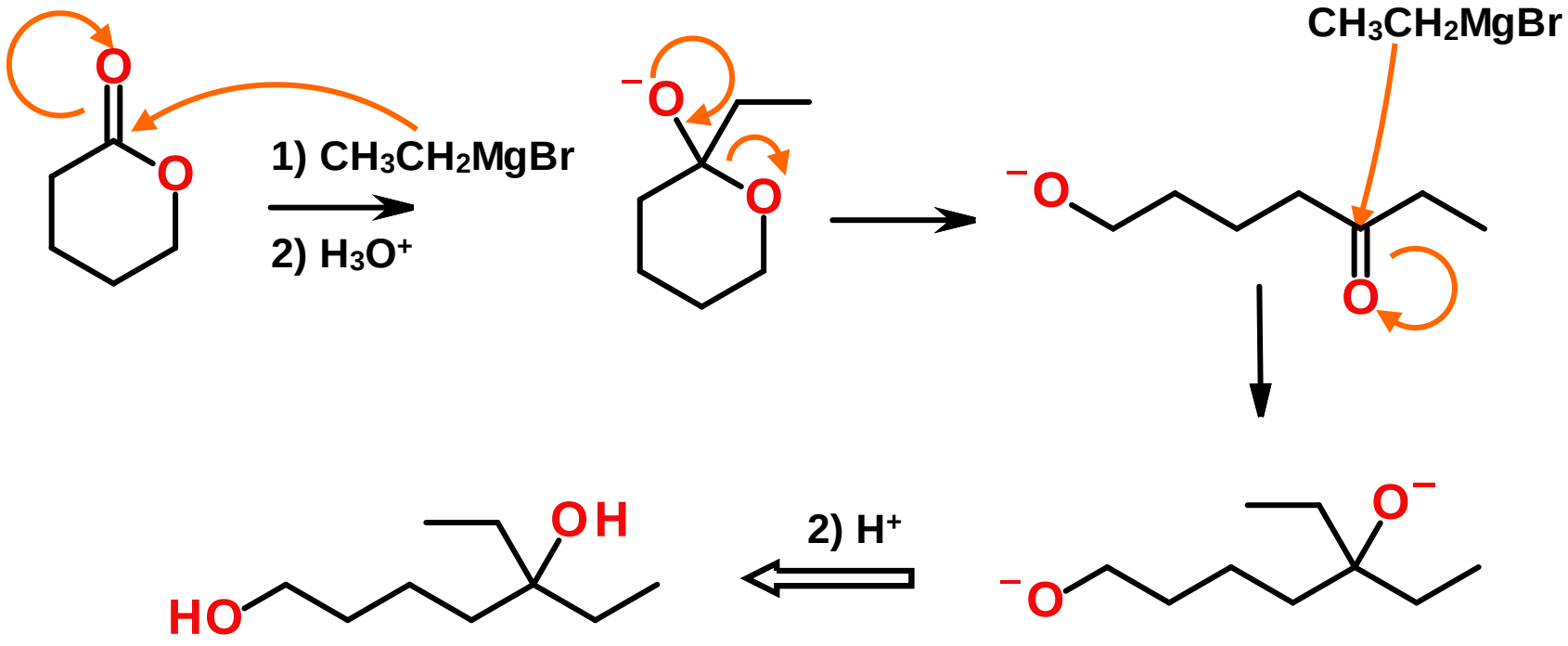
B

$H_3C—CH_3$

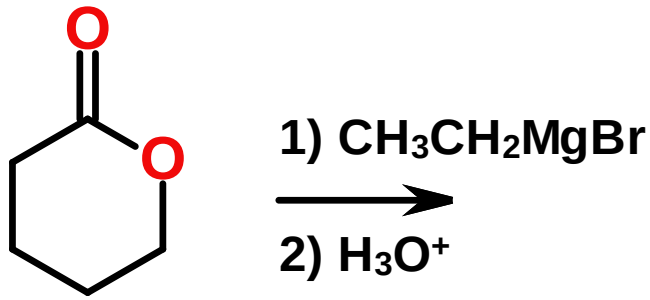
D

E. There is no reaction or the correct product is not listed here.

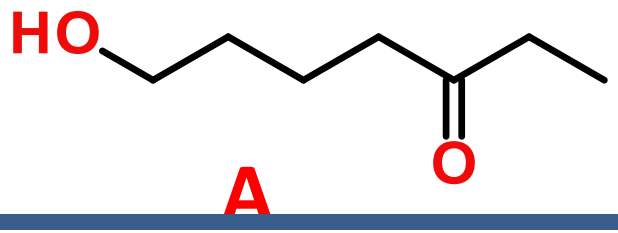
Explanation



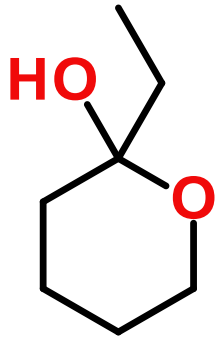
Give the major organic product(s) of the following reaction.



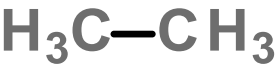
2016-09-26 Q1



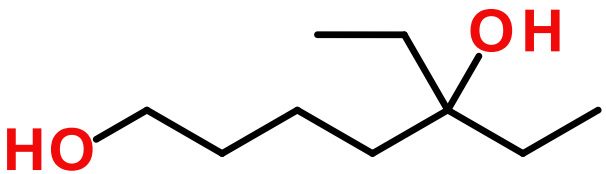
A



B



D



C

E. There is no reaction or the correct product is not listed here.

Exam 2

- **Time:**
  - **Tuesday, October 18: 7:00 – 9:00PM OR**
  - **Wednesday, October 19: 7:00 – 9:00PM OR**
  - **Thursday, October 20: 7:00 – 10:00PM**
- **Location – Soc/Anthro Testing Center**
  - Chapters will be covered in this order: Chapter 19, 12
- **Practice Exams are Posted**
  - Ex2-14-98 Practice Exam 2A
  - Ex2-14-98 Practice Exam 2B
- **Deadline for alternate arrangements is Monday, 10/17/2016 at 4:30 PM (i.e., close of business)**
  - **An oral make-up exam will be required for making up the exam for all students not taking the exam on the above dates or having already made prior arrangements**

No Class Wednesday!

My wife is having a procedure done at the hospital and I need to be at the hospital.

Order of Coverage (Exam 2)

	Homework Assignment	Due Date
1	Ex2-01-B7-19-08A Aryl Side Chain Rxns	Saturday, September 24, 2016
2	Ex2-01-B7-19-08B Aryl Side Chain Rxns	Sunday, September 25, 2016
3	Ex2-02-B7-19-09A Arylamines	Monday, September 26, 2016
4	Ex2-02-B7-19-09B Arylamines	Tuesday, September 27, 2016
5	Ex2-03-B7-12-01A Grignard Rxns	Wednesday, September 28, 2016
6	Ex2-03-B7-12-01B Grignard Rxns	Thursday, September 29, 2016
7	Ex2-04-B7-12-02A Hydride Reductions	Friday, September 30, 2016
8	Ex2-04-B7-12-02B Hydride Reductions	Saturday, October 1, 2016
9	Ex2-05-B7-12-01A Naming Carboxylic Acids	Sunday, October 2, 2016
10	Ex2-05-B7-12-01B Naming Carboxylic Acids	Monday, October 3, 2016
11	Ex2-06-B7-12-02A Prep Carbox Acids	Tuesday, October 4, 2016
12	Ex2-06-B7-12-02B Prep Carbox Acids	Wednesday, October 5, 2016

No Problem for Class Scheduling due to Cancelled Class: We will handle Hydride Reductions Today in Class

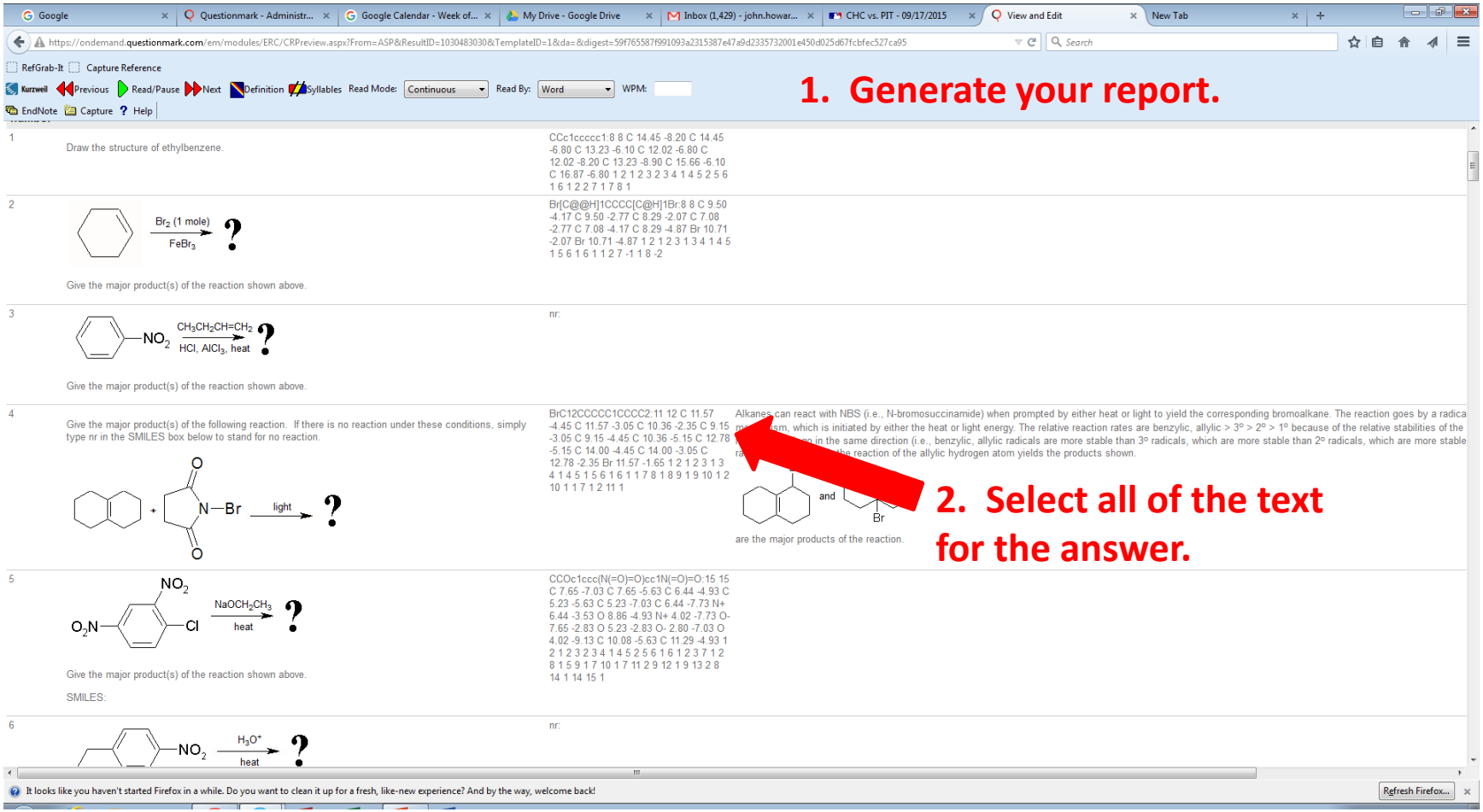
Order of Coverage (Exam 2)

	Homework Assignment	Due Date
13	Ex2-07-B7-12-03A Carbox Acid Rxns	Thursday, October 6, 2016
14	Ex2-07-B7-12-03B Carbox Acid Rxns	Friday, October 7, 2016
15	Ex2-08-B7-12-04A Naming Carbox Acid Derivatives	Saturday, October 8, 2016
16	Ex2-08-B7-12-04B Naming Carbox Acid Derivatives	Sunday, October 9, 2016
17	Ex2-09-B7-12-05A Rxns Acid Chlorides	Monday, October 10, 2016
18	Ex2-09-B7-12-05B Rxns Acid Chlorides	Tuesday, October 11, 2016
19	Ex2-10-B7-12-06A Rxns Esters	Wednesday, October 12, 2016
20	Ex2-10-B7-12-06B Rxns Esters	Thursday, October 13, 2016
21	Ex2-11-B7-12-07A Rxns Amides	Friday, October 14, 2016
22	Ex2-11-B7-12-07B Rxns Amides	Saturday, October 15, 2016
23	Ex2-12-B7-12-08A Step Growth Polymers	Sunday, October 16, 2016
	Exam 2	**October 18, 19, 20**

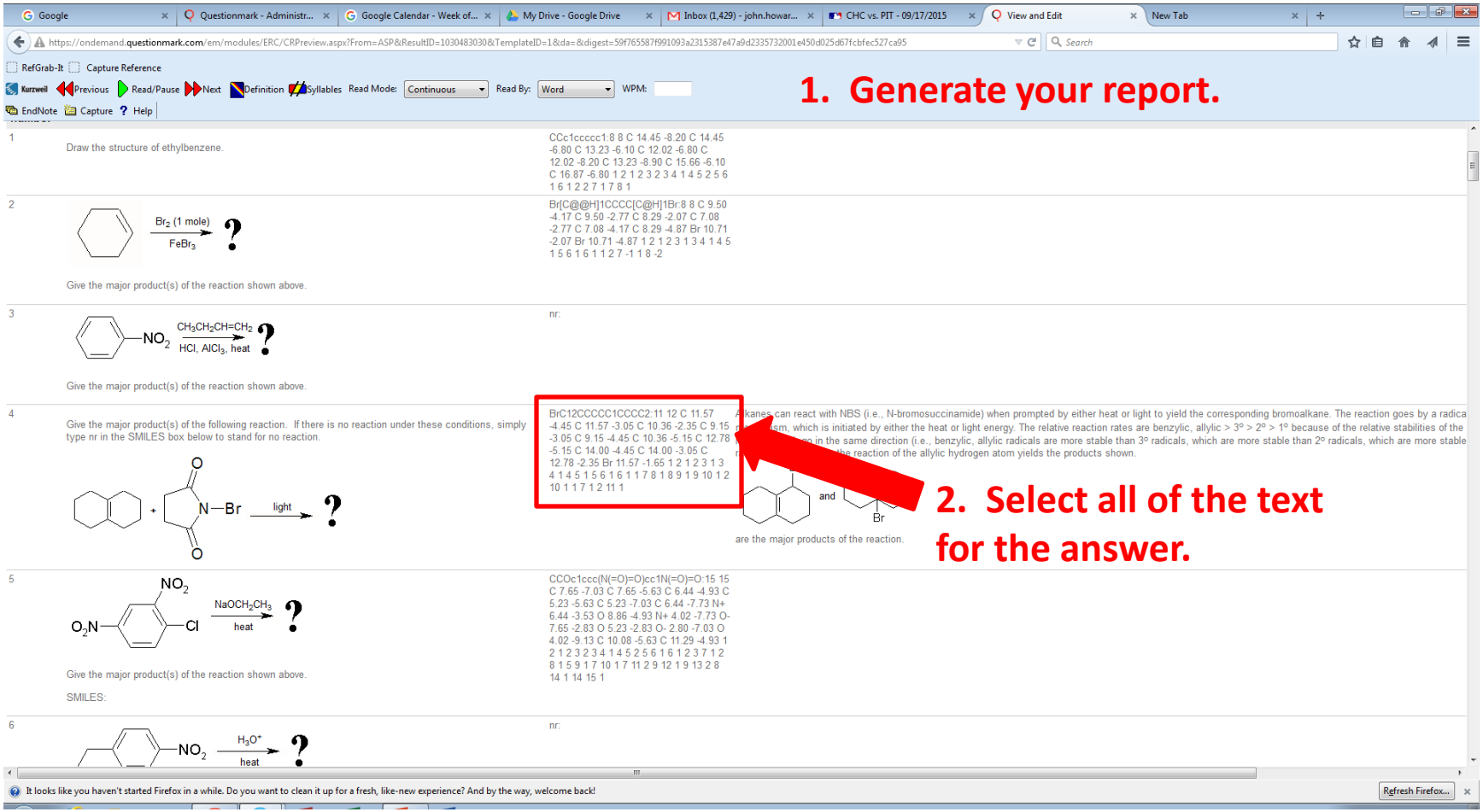
Appealing Computer Grading

- In an email, tell me the question number(s) of the question that you want to appeal. Give your explanation for why you believe that the question was graded incorrectly. I will reply by email.
- Chances are that I probably will not respond by email. When we determine final letter grades at the end of the semester and if you are one or two questions short of your preferred letter grade, we will look at appeals at that point in time.

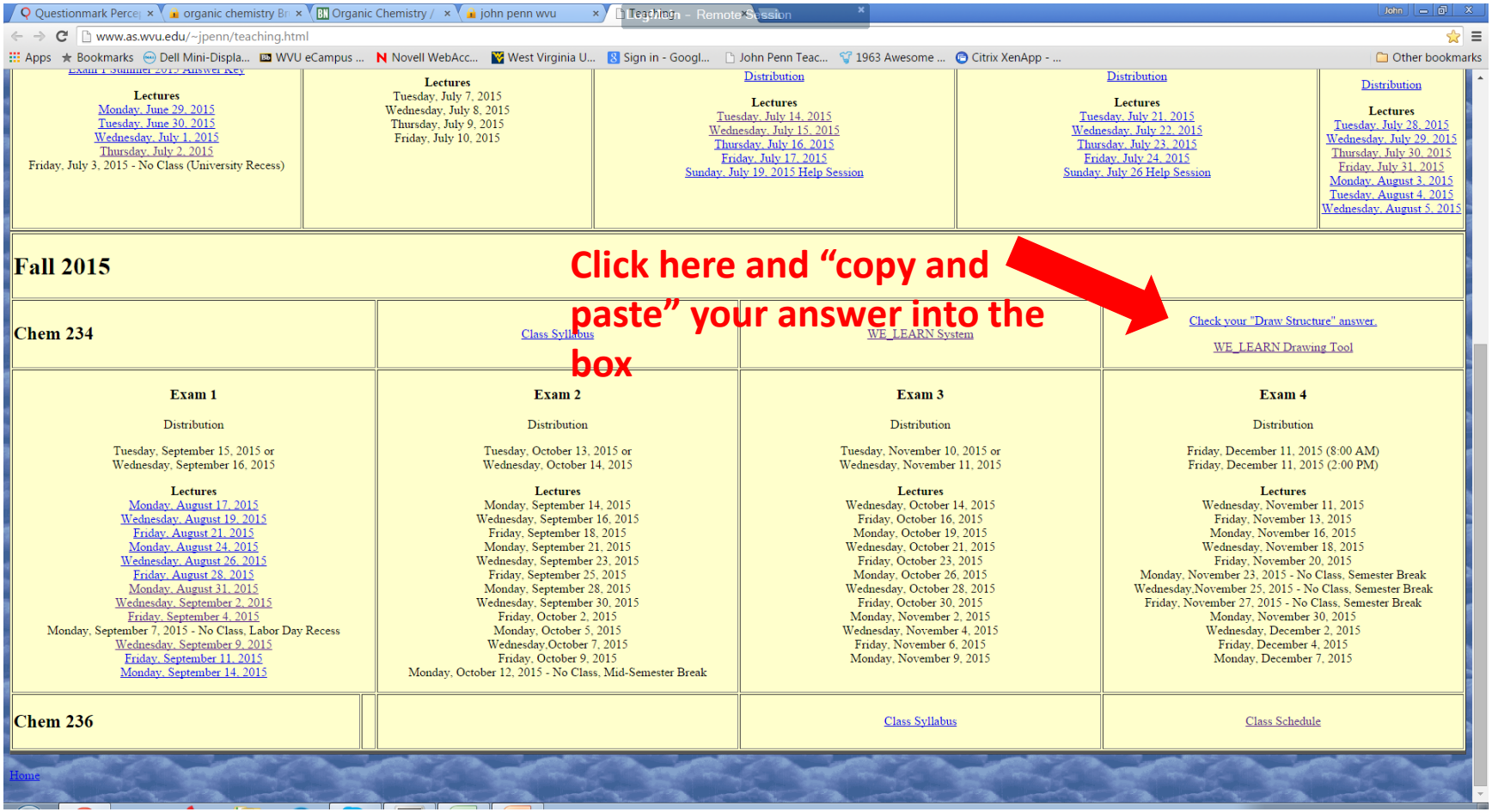
Can you see your DRAW_STRUCTURE answers? YES



Can you see your DRAW_STRUCTURE answers? YES



Can you see your Draw_Structure answers? YES



Questionmark Perce | organic chemistry Br | Organic Chemistry / | john penn wvu | Teaching – RemoteSession

www.as.wvu.edu/~jpenn/teaching.html

Apps ★ Bookmarks Dell Mini-Displa... WVU eCampus ... Novell WebAcc... West Virginia U... Sign in - Googl... John Penn Teac... 1963 Awesome ... Citrix XenApp - ... Other bookmarks

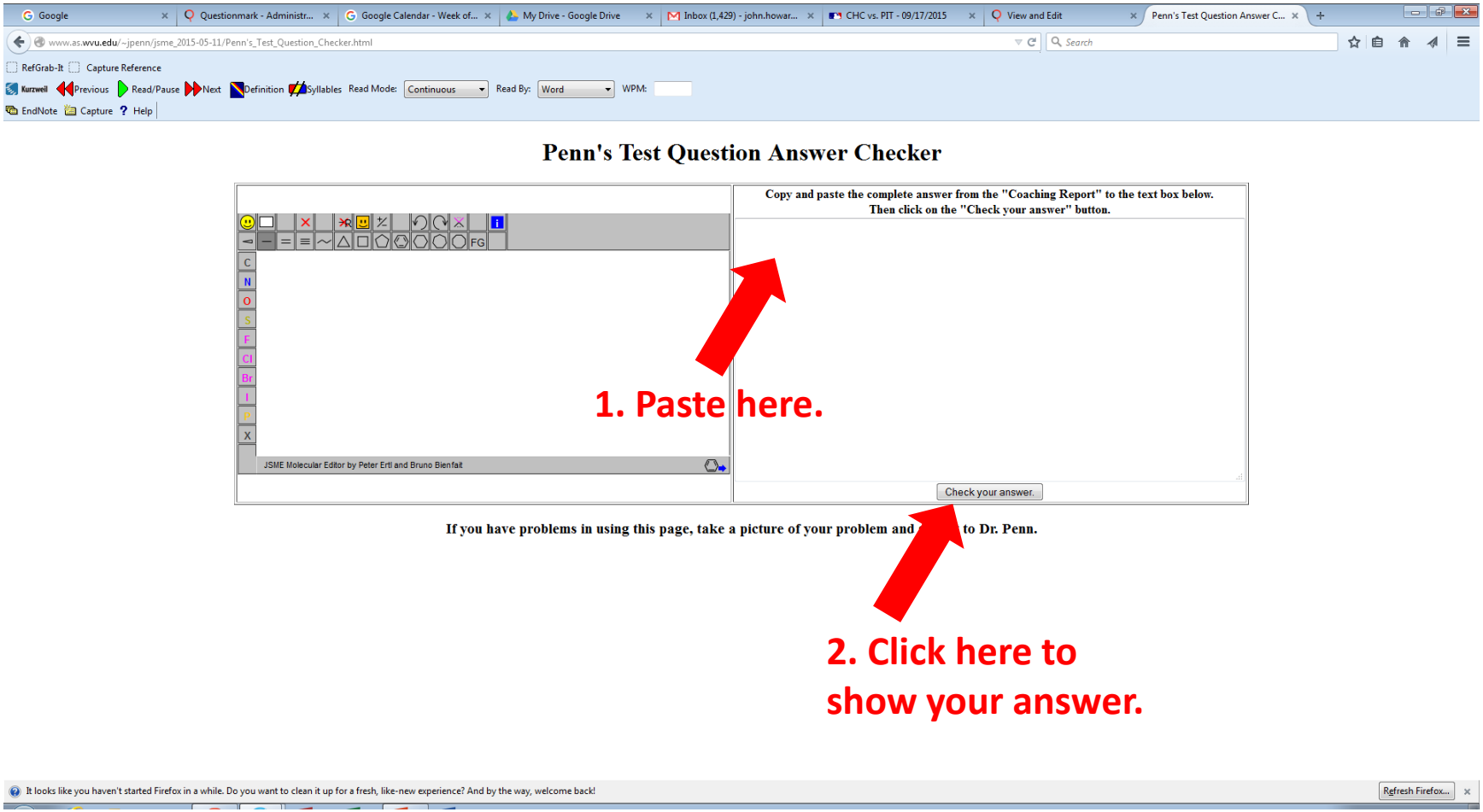
Exam 1 Summer 2015 Answer Key **Lectures** Monday, June 29, 2015 Tuesday, June 30, 2015 Wednesday, July 1, 2015 Thursday, July 2, 2015 Friday, July 3, 2015 - No Class (University Recess)	**Lectures** Tuesday, July 7, 2015 Wednesday, July 8, 2015 Thursday, July 9, 2015 Friday, July 10, 2015	Distribution **Lectures** Tuesday, July 14, 2015 Wednesday, July 15, 2015 Thursday, July 16, 2015 Friday, July 17, 2015 Sunday, July 19, 2015 Help Session	Distribution **Lectures** Tuesday, July 21, 2015 Wednesday, July 22, 2015 Thursday, July 23, 2015 Friday, July 24, 2015 Sunday, July 26 Help Session	Distribution **Lectures** Tuesday, July 28, 2015 Wednesday, July 29, 2015 Thursday, July 30, 2015 Friday, July 31, 2015 Monday, August 3, 2015 Tuesday, August 4, 2015 Wednesday, August 5, 2015

Fall 2015

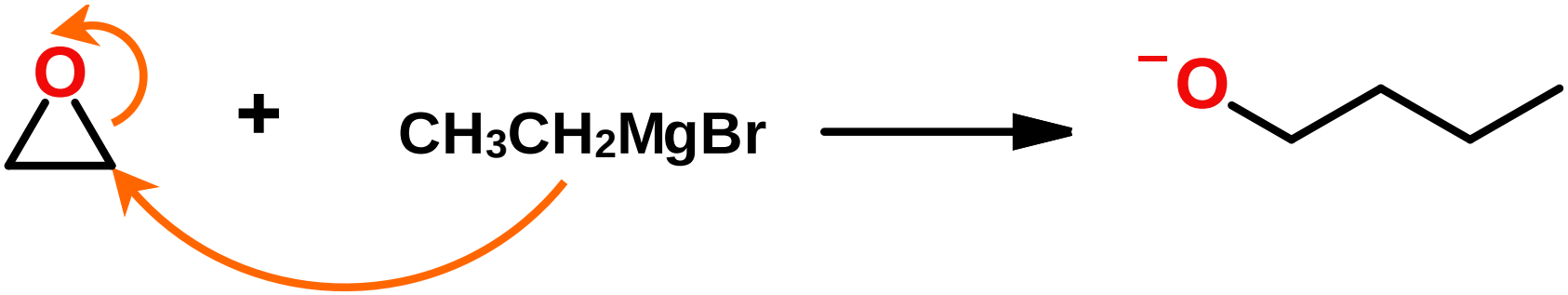
Chem 234	Class Syllabus	WE_LEARN System	Check your "Draw Structure" answer. WE_LEARN Drawing Tool
Exam 1 Distribution Tuesday, September 15, 2015 or Wednesday, September 16, 2015 **Lectures** Monday, August 17, 2015 Wednesday, August 19, 2015 Friday, August 21, 2015 Monday, August 24, 2015 Wednesday, August 26, 2015 Friday, August 28, 2015 Monday, August 31, 2015 Wednesday, September 2, 2015 Friday, September 4, 2015 Monday, September 7, 2015 - No Class, Labor Day Recess Wednesday, September 9, 2015 Friday, September 11, 2015 Monday, September 14, 2015	**Exam 2** Distribution Tuesday, October 13, 2015 or Wednesday, October 14, 2015 **Lectures** Monday, September 14, 2015 Wednesday, September 16, 2015 Friday, September 18, 2015 Monday, September 21, 2015 Wednesday, September 23, 2015 Friday, September 25, 2015 Monday, September 28, 2015 Wednesday, September 30, 2015 Friday, October 2, 2015 Monday, October 5, 2015 Wednesday,October 7, 2015 Friday, October 9, 2015 Monday, October 12, 2015 - No Class, Mid-Semester Break	**Exam 3** Distribution Tuesday, November 10, 2015 or Wednesday, November 11, 2015 **Lectures** Wednesday, October 14, 2015 Friday, October 16, 2015 Monday, October 19, 2015 Wednesday, October 21, 2015 Friday, October 23, 2015 Monday, October 26, 2015 Wednesday, October 28, 2015 Friday, October 30, 2015 Monday, November 2, 2015 Wednesday, November 4, 2015 Friday, November 6, 2015 Monday, November 9, 2015	**Exam 4** Distribution Friday, December 11, 2015 (8:00 AM) Friday, December 11, 2015 (2:00 PM) **Lectures** Wednesday, November 11, 2015 Friday, November 13, 2015 Monday, November 16, 2015 Wednesday, November 18, 2015 Friday, November 20, 2015 Monday, November 23, 2015 - No Class, Semester Break Wednesday,November 25, 2015 - No Class, Semester Break Friday, November 27, 2015 - No Class, Semester Break Monday, November 30, 2015 Wednesday, December 2, 2015 Friday, December 4, 2015 Monday, December 7, 2015
Chem 236		Class Syllabus	Class Schedule

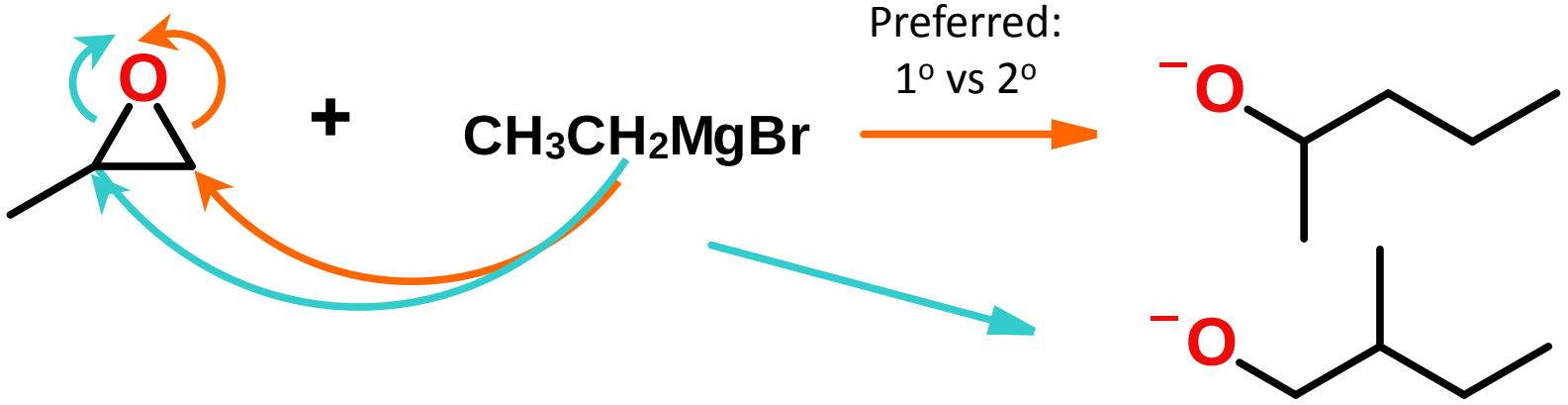
Home

“Copy and paste” your answer here



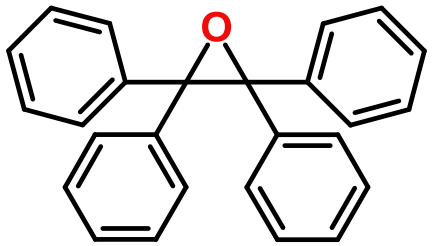
Grignard Reactions with Epoxides





Analogous to SN2 Reactions: Steric Effects Rule!

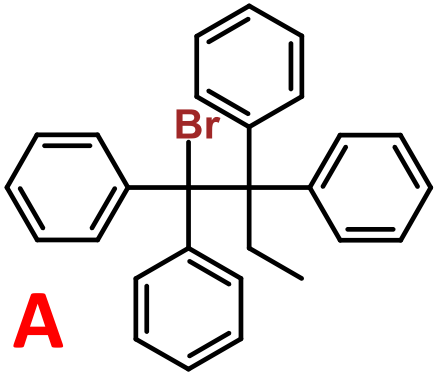
Give the major organic product(s) of the following reaction.



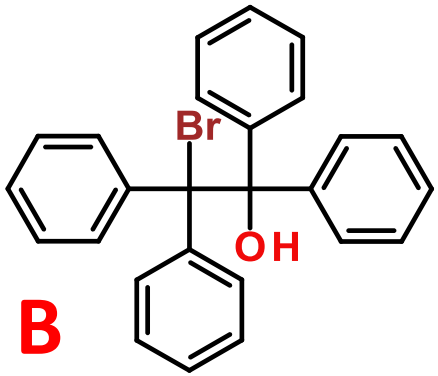
1) CH_3CH_2MgBr

2) H_3O^+

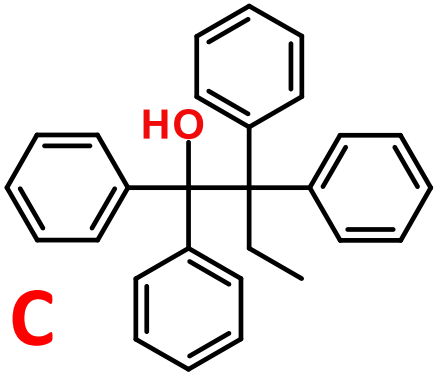
2016-09-26 Q2



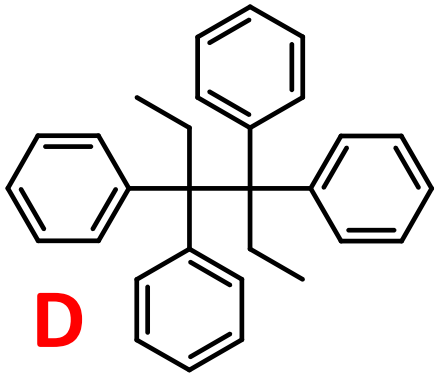
A



B



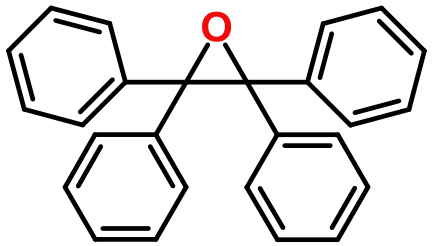
C

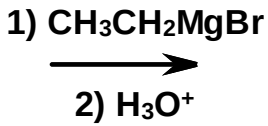


D

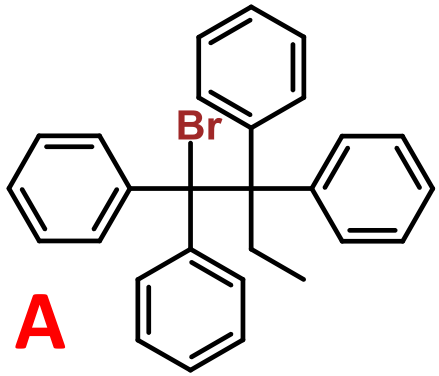
E. There is no reaction or the correct product is not listed here.

Give the major organic product(s) of the following reaction.

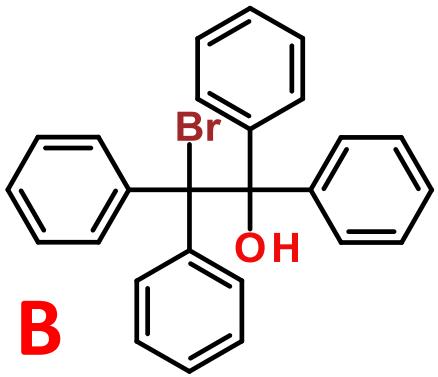




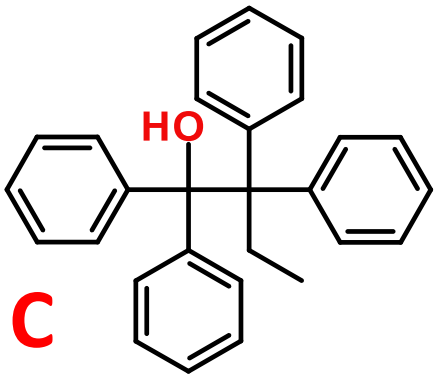
2016-09-26 Q2



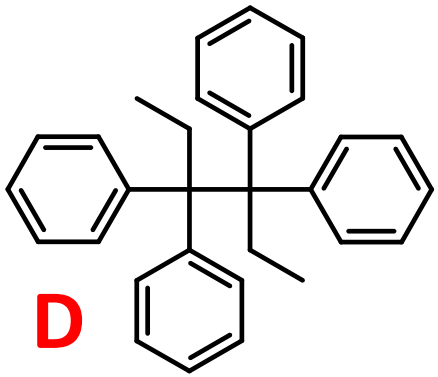
A



B



C



D

E. There is no reaction or the correct product is not listed here.

Hydride Reductions

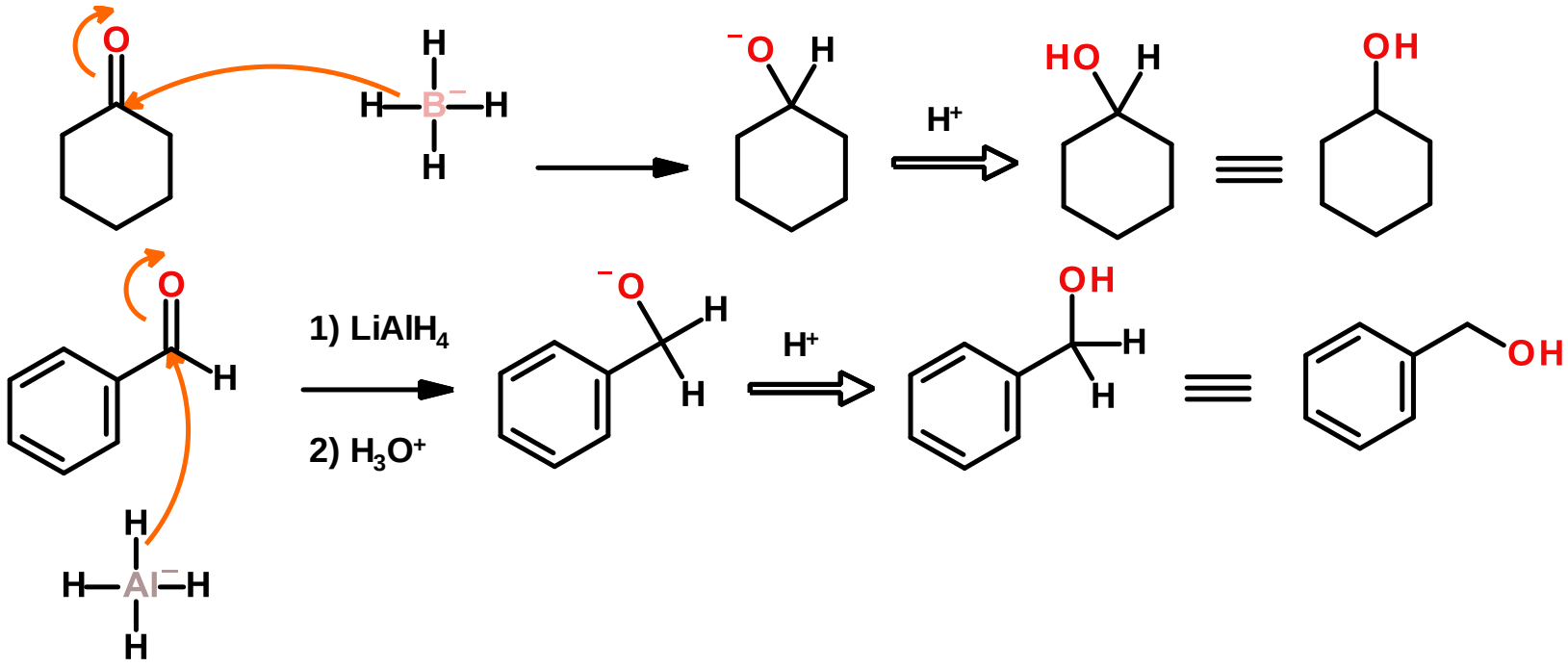
$NaBH_4$

- Weaker Hydride
- Reacts with
  - Aldehydes and Ketones
- Does Not React with
  - Esters
  - Carboxylic Acids (????)
  - Amides

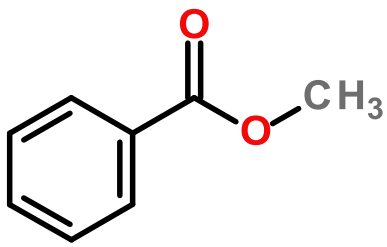
$LiAlH_4$

- Stronger Hydride
- Reacts with
  - Aldehydes and Ketones
  - Esters
  - Carboxylic Acids
  - Amides
    - Acid Work-up
    - Basic Work-up

Mechanism of Hydride Reduction: Aldehydes and Ketones



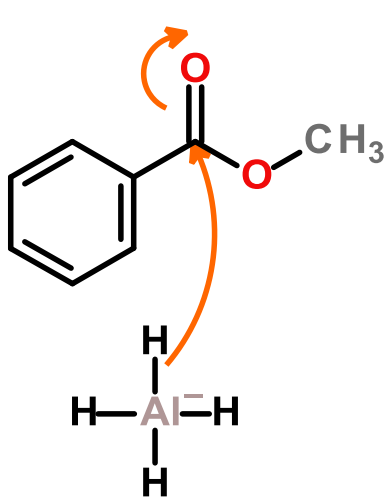
Mechanism of Hydride Reduction: Esters



1) $NaBH_4$

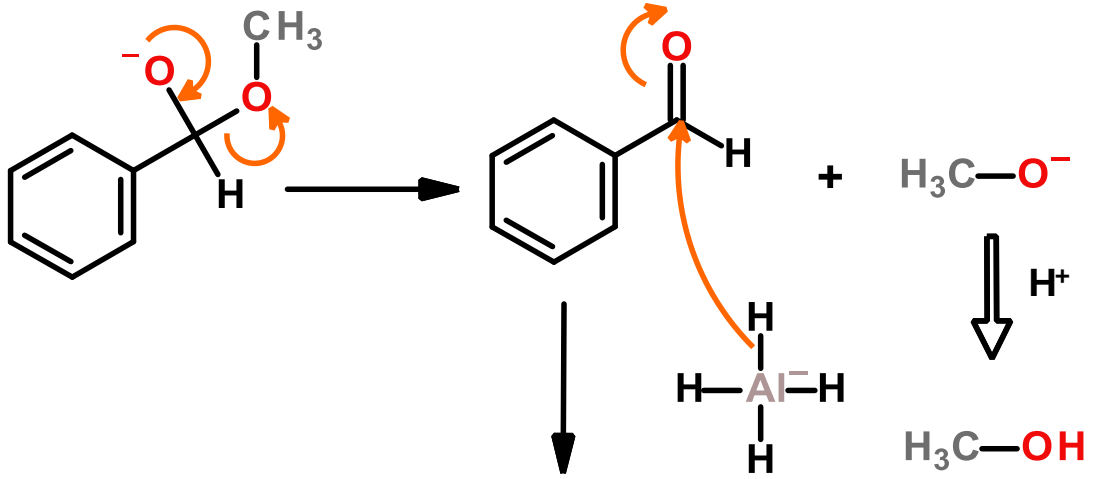
2) H_3O^+

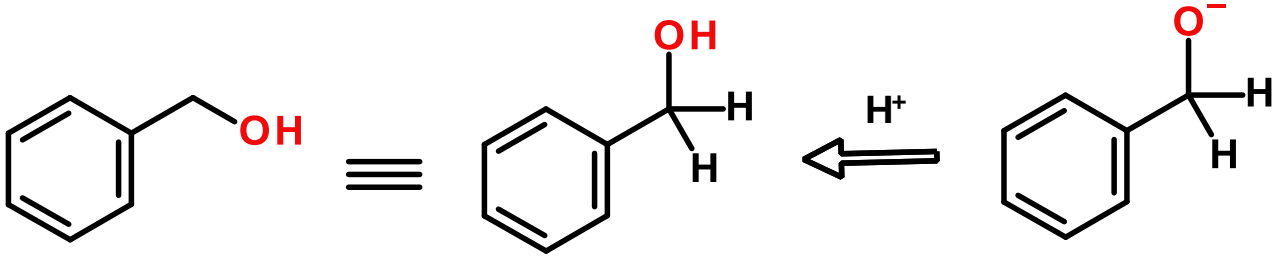
No Reaction



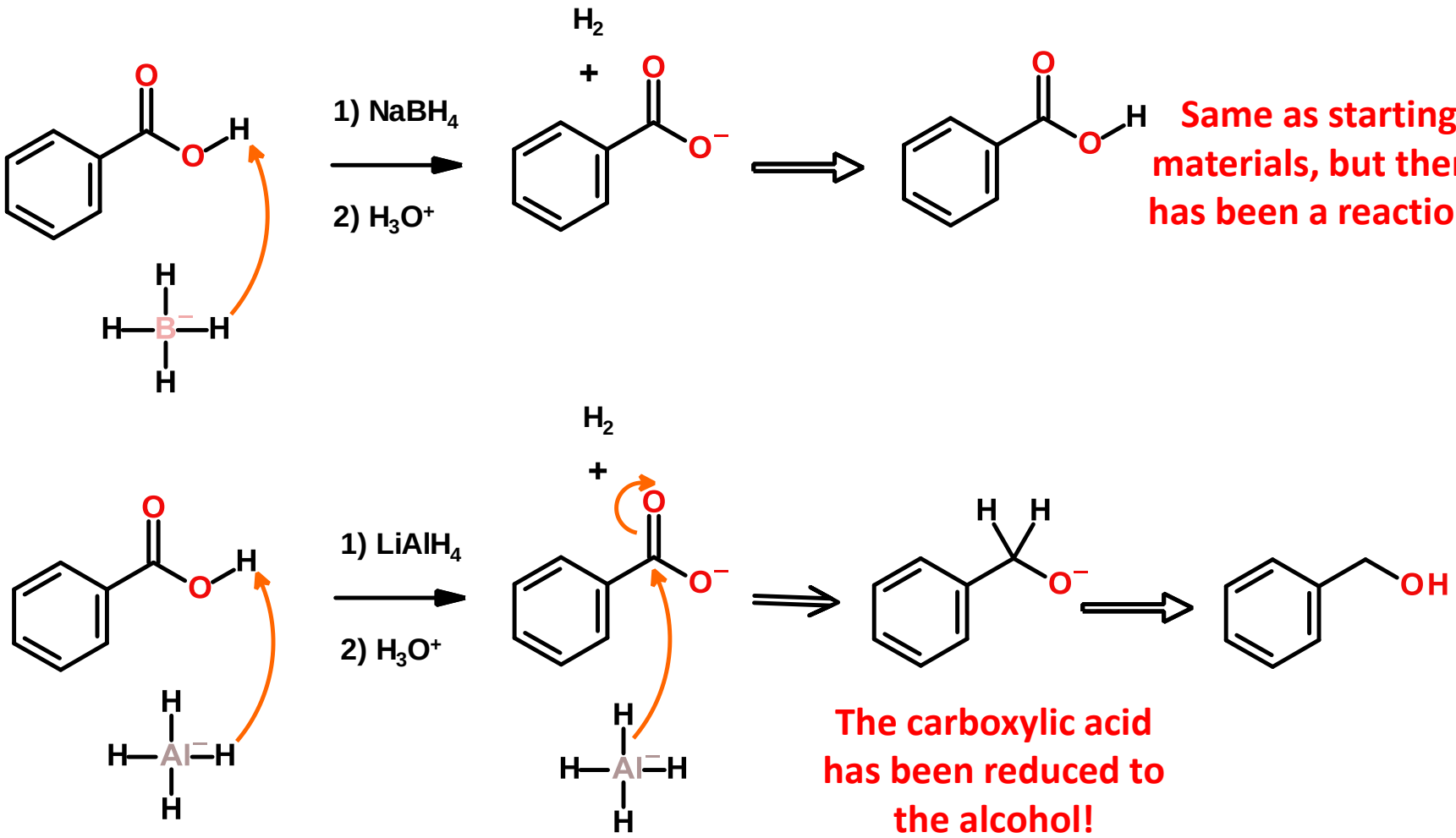
1) $LiAlH_4$

2) H_3O^+

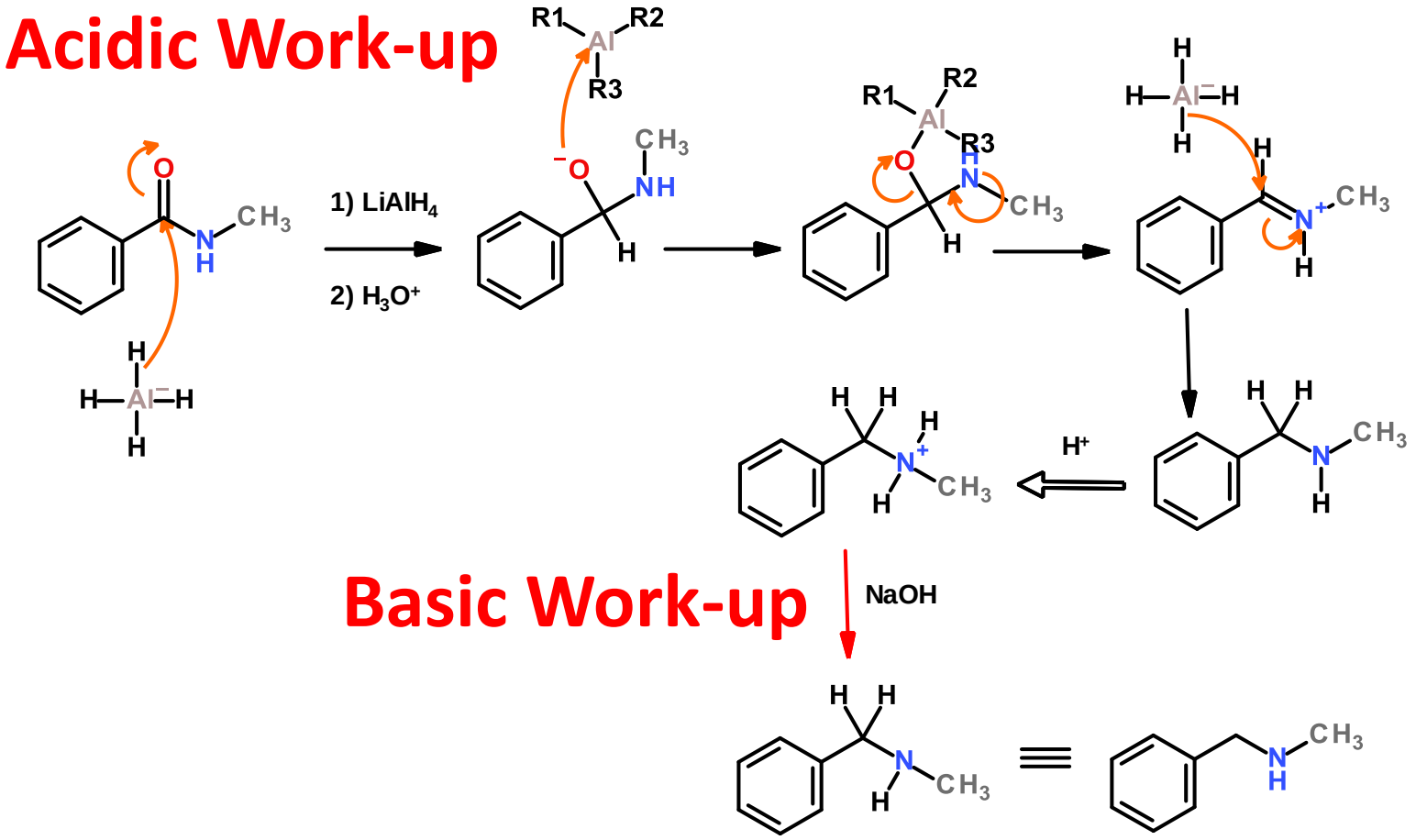




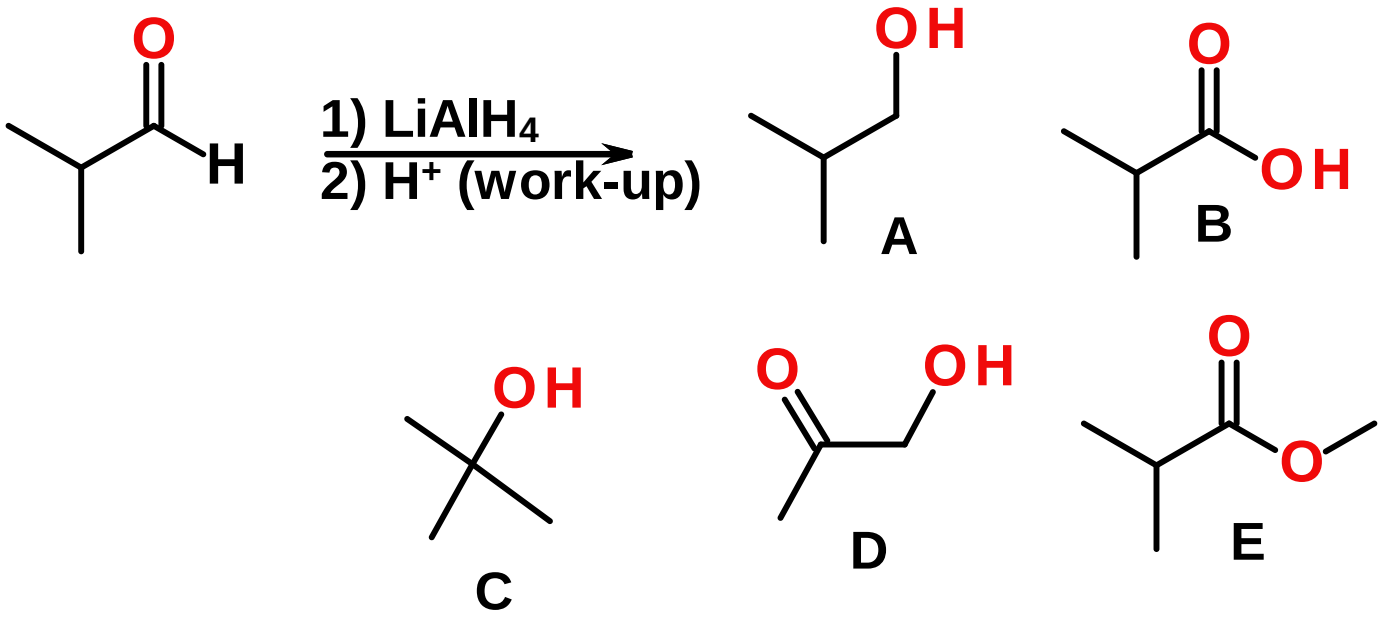
Hydrides with Carboxylic Acids



Amide Reduction by $LiAlH_4$

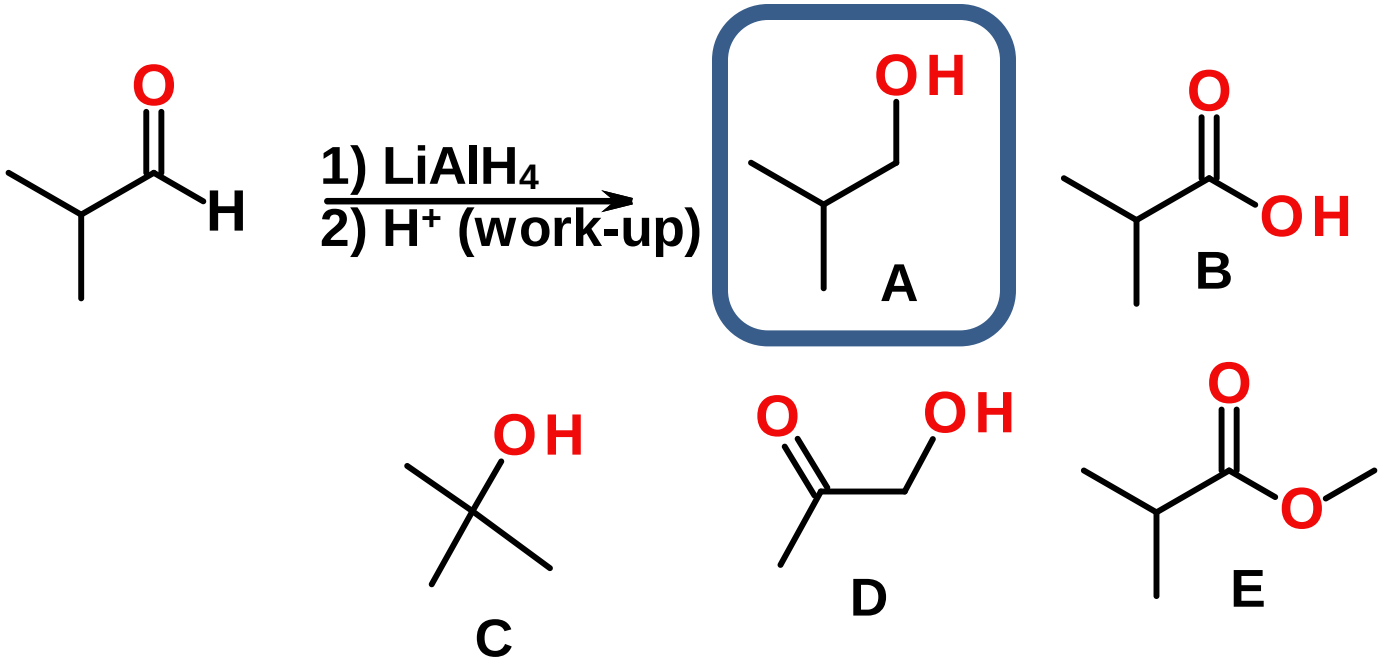


Give the major organic product(s) of the following reaction. Give your answer as a text answer, with the correct answers being listed in alphabetical order. (Example: xxxx ab) **2016-09-26 Q3**



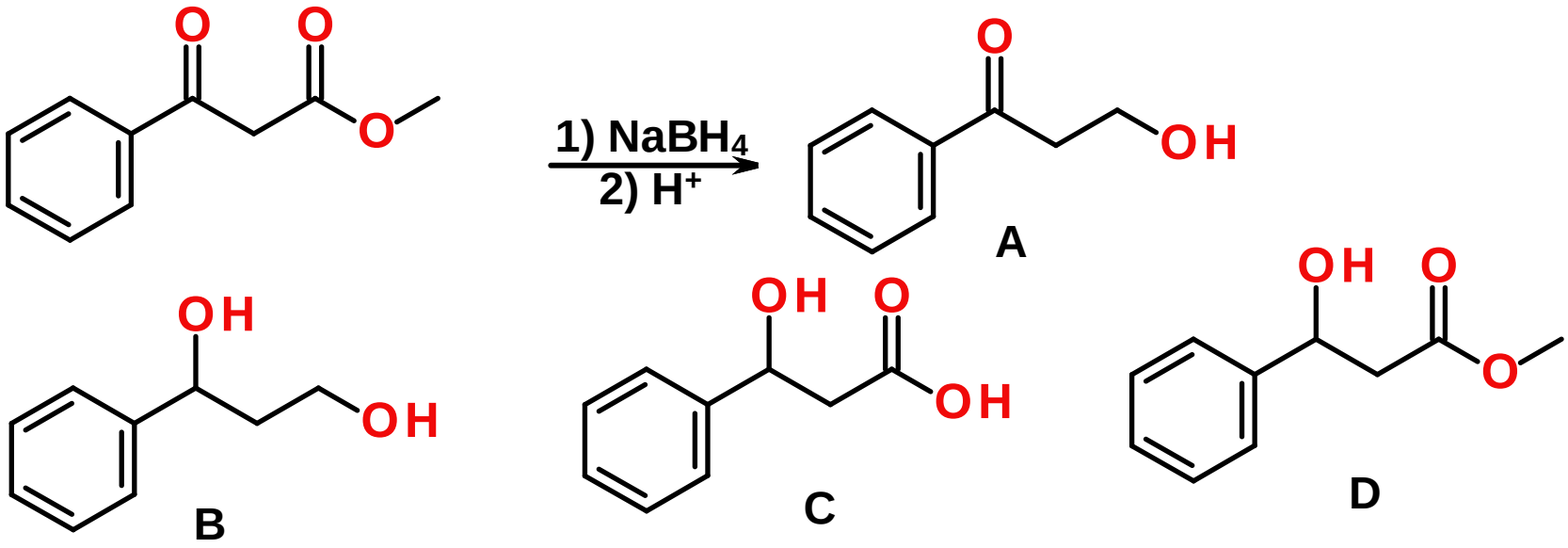
E - None of these products are a major product of the reaction that is shown.

Give the major organic product(s) of the following reaction. Give your answer as a text answer, with the correct answers being listed in alphabetical order. (Example: xxxx ab) **2016-09-26 Q3**



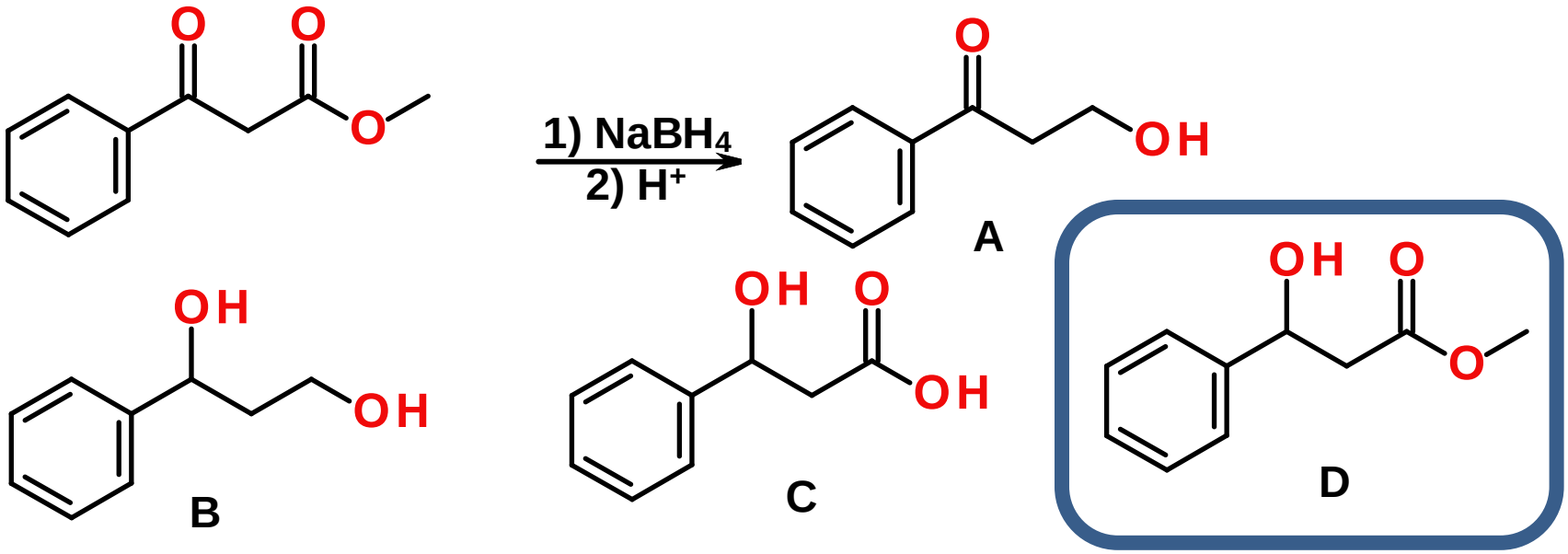
E - None of these products are a major product of the reaction that is shown.

Give the major organic product(s) of the following reaction. Give your answer as a text answer, with the correct answers being listed in alphabetical order. (Example: xxxx ab) **2016-09-26 Q4**



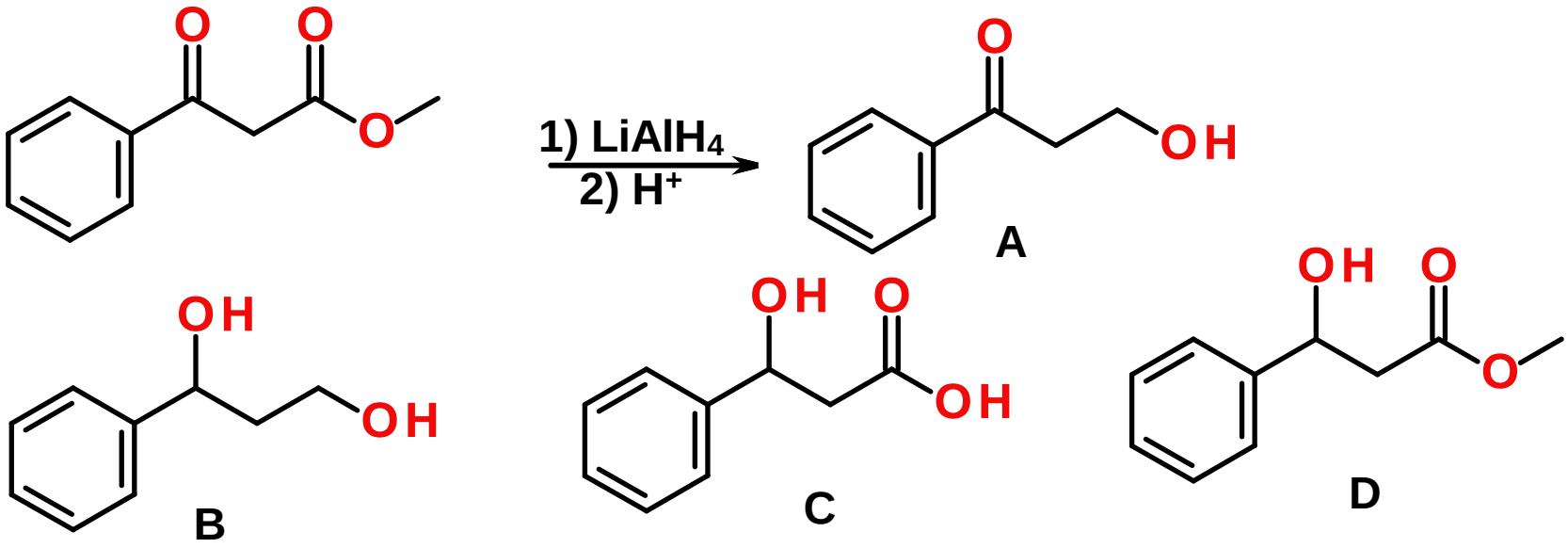
E - None of these products are a major product of the reaction that is shown.

Give the major organic product(s) of the following reaction. Give your answer as a text answer, with the correct answers being listed in alphabetical order. (Example: xxxx ab) **2016-09-26 Q4**



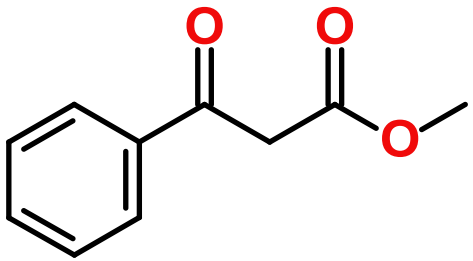
E - None of these products are a major product of the reaction that is shown.

Give the major organic product(s) of the following reaction. Give your answer as a text answer, with the correct answers being listed in alphabetical order. (Example: xxxx ab) **2016-09-26 Q5**

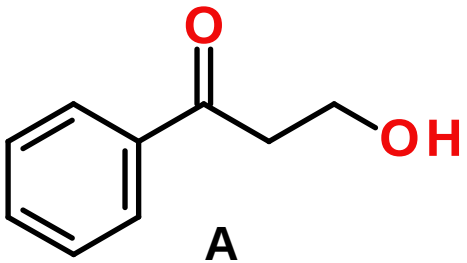


E - None of these products are a major product of the reaction that is shown.

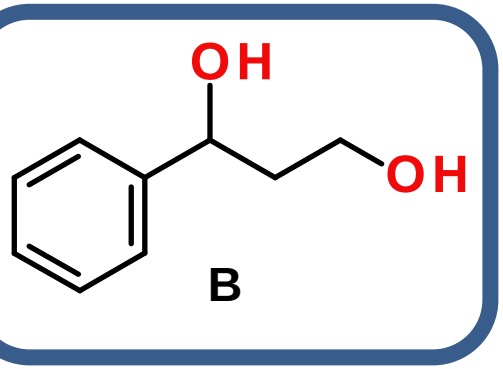
Give the major organic product(s) of the following reaction. Give your answer as a text answer, with the correct answers being listed in alphabetical order. (Example: xxxx ab) **2016-09-26 Q5**



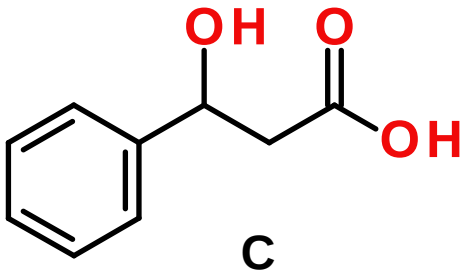
1) $LiAlH_4$
2) H^+



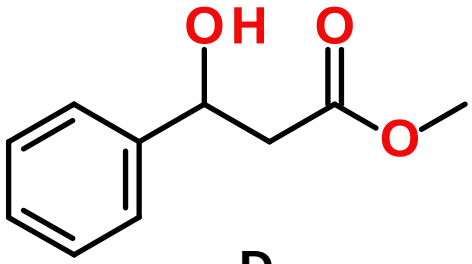
A



B



C



D

E - None of these products are a major product of the reaction that is shown.