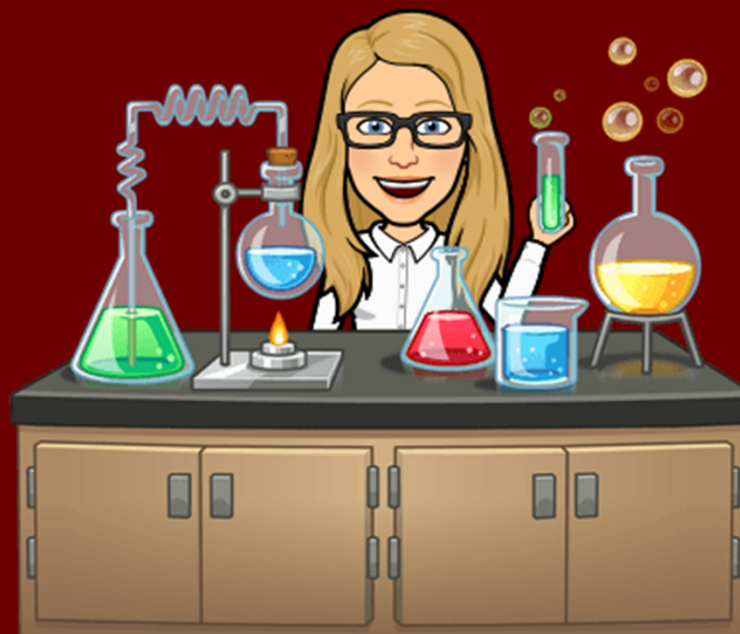


For clicker question voting, go to:  
<https://pollev.com/lauriestarke263>



Dr. Laurie S. Starkey  
Cal Poly Pomona

CHM 3150 Organic Chemistry II  
9/16/25

# Today's Topic: Ch. 13, Step 3

## Synthesis Strategies & Exam Review

### Daily To-Do

### Flipped Lectures

#### Step 3 **Read**

- Read Klein 13.12 **Synthesis Strategies**
- ~~Watch flipped lecture~~
- Work through **SkillBuilders 13.6, 13.7**
- All Ch. 12 and 13 assignments are meant to prepare you for the exam, so they are due no later than **11 pm on the day of Exam 1**

[Ether synthesis strategies](#)

**7 minutes**, page 13-8

**Practice**

**Watch**

# Exam I Thursday, 9/18 (Chapters 11, 12, 13)

## 60-minute written exam

- no multiple-choice, no Scantron, no lecture after

## No notes, calculators, model kits allowed

- Bring pencil(s), eraser

## See sample exams on course homepage

- See typical length, format

**Extra office hour/  
review session (Zoom)  
Tonight! 9-10 pm**

### Sample Exams

*Why are there no answer keys? What is the best way to study for an exam? [Click here to find out!](#)*

• [CHM 3150 Exam I](#) (Alcohol/Ether, Ch. 11/12/13) [Sample Transforms](#) and [answer key](#)

Study hints

Extra  
practice

Don't let this  
happen to you!

Test-taking  
strategies...



- Carefully read directions & follow instructions
- Ask me if something is unclear (maybe a typo?!)
- Exam does not need to be taken in order – start with your most confident question type!

<i>predict product</i>	<i>IUPAC</i>
<i>mechanism</i>	<i>explain</i>
<i>synthesis</i>	<i>transform</i>

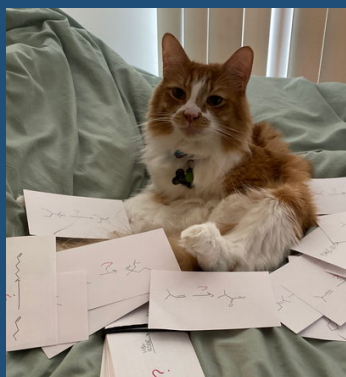
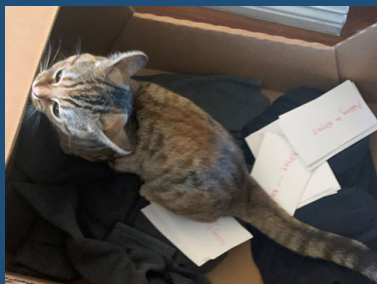


# Why use old-fashioned flash cards?



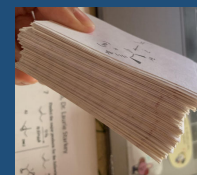
## Quizlet-type website

- Items not aligned with instructor notes/textbook
- Computer & Internet needed
- Limited ability to customize
- Limited ability to mix topics
- YOU are not in control



## Flash Cards

- Created from YOUR notes/textbook
- No limit to topics (nomenclature...)
- Variety of skills (missing product or missing reagents or missing substrate)
- No tech needed, so offers ultimate mobility: car, beach, picnic, etc.
- Can remove cards as proficiency improves = focus where needed
- Cards can be shuffled = final exam prep.
- Stack can grow in with each chapter
- Good review for MCAT, DAT, PCAT...



# 3 Assignments due ASAP + Ch. 11/12/13 EOC on 9/18

## Gradescope

### CHM 3150 Organic Chemistry II, Cal Poly Pomona, Dr. Laurie S. Starkey Homework #1 – 20-Question Review, Chapters 7-10

Name: \_\_\_\_\_ Section (day/time): \_\_\_\_\_

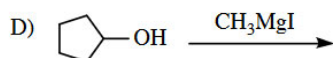
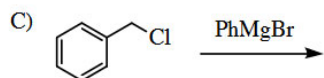
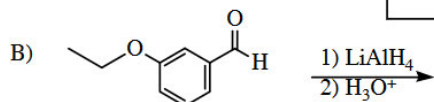
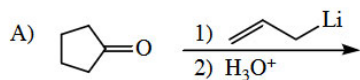
- On blank pieces of paper, draw out the following twenty textbook problems (Klein, 4<sup>th</sup> edition) and solve them. Do not just write down the answers. **7.76acef, 8.42ac, 8.43a-f, 9.41bcd, 9.52bc, 10.23abc**
- Check your answers in the Student Solutions Manual (SSM), and make corrections to your work. You are encouraged to work with a study group, but your review of the material is worthwhile only if you attempt the problems before checking the SSM!

===== **Simply copying answers from solutions manual will not earn full credit!** =====

### CHM 3150 Organic Chemistry I, Dr. Laurie S. Starkey Predict the Products Problem Set: Grignard/Hydride

Name: \_\_\_\_\_

Predict the major product(s) expected for each of the following reactions. Indicate stereochemistry, when appropriate. You may assume reagents are in excess, unless otherwise noted. If no reaction is expected, write "no reaction".



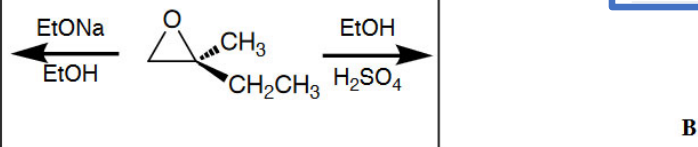
### California State Polytechnic University, Pomona Organic Chemistry II CHM 3150, Dr. Laurie S. Starkey Epoxide Ring Opening Homework

Name: \_\_\_\_\_ Section Day/Time: \_\_\_\_\_

Predict the major product for each of the following reactions and provide a complete mechanism. Pay close attention to details, including lone pairs, formal charges and the use of curved arrows.



mechanism for reaction A:



### Free Red Ink Assignments

128

students

Name	Points	Released	Submissions	
<u>Epoxide Homework</u>	5.0	SEP 10, 2025	21	16%
<u>Grignard Homework</u>	5.0	SEP 2, 2025 8	79	62%
<u>20-Questions Review Homework#1</u>	5.0	AUG 20, 2025	94	73%

Chapter 11 EOC/SkillBuilder	5.0
Chapter 12 EOC/SkillBuilder	10.0
Chapter 13 EOC/SkillBuilder	10.0

# For the Weekend: Chapter 19, Steps 1 & 2

## Daily To-Do

## Flipped Lectures

### Step 1

#### Read

- Read Klein
  - Sections 19.1, 19.2 Nomenclature of Aldehydes & Ketones
  - Section 19.3 Preparation of Aldehydes & Ketones
  - Sections Klein 19.4-19.6 Reaction with Hydride & Grignard Nucleophiles

- Watch flipped lectures

- Work through SkillBuilder 19.1 and Conceptual Checkpoints 19.5a-e, 19.6a-d, 19.7ab, 19.8ab
- Practice Aldehyde/Ketone Nomenclature: [practice worksheet](#) and [answer key](#)

Practice

- [Part 1a - IUPAC of Aldehydes and Ketones](#)

14 minutes

*skeleton notes page 19-1*

- [Part 1b - Preparation, Reaction with Hydride/Grignard](#)

38 minutes

*skeleton notes pages 19-1 to 19-3*

Watch

### Step 2

#### Read

- Read Klein 19.6 Reaction with Carbon Nucleophiles
- Work through SkillBuilder 19.2 and Conceptual Checkpoint 19.15ab

- Read Klein 19.7 Reactions with Oxygen Nucleophiles (hold off on Protecting Groups until later)
- Work through SkillBuilder 19.3 and Conceptual Checkpoints 19.20ab, 19.21, 19.22.

- Note: for more sugar examples, see SkillBuilder 24.1 and Chapter 24 problems 24.9, 24.10, 24.11.

- Read Klein 19.9 Hydrolysis of Acetals

- [Part 2a - Wittig](#)

13 minutes

*skeleton notes pages 19-4 to 19-5*

- [Part 2b - Acetal Formation](#)

29 minutes

*skeleton notes pages 19-5 to 19-7*

- [Part 2c - Acetal Hydrolysis](#)

10 minutes

*skeleton notes page 19-7*

Practice

Watch