

CHM 234, Spring 2018

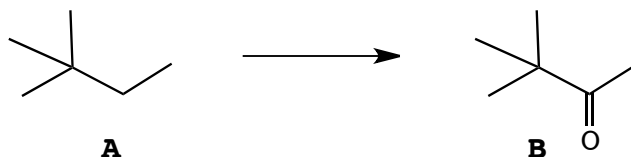
QUIZ #3

(hit the RETURN Button to return to the Main Quiz Page)

QUESTION 1

MC28t

What are the best reagents/conditions to perform the following simple synthesis?



- A**
1. NBS/hv
  2.  $K^+ -O-t-Bu$
  3.  $Br_2$
  4. Excess  $NaNH_2$
  5.  $H_2O$
  6.  $HgSO_4/H_2SO_4/H_2O$

- C**
1. NBS/hv
  2.  $Na^+ -OMe$
  3.  $Br_2$
  4. Excess  $NaNH_2$
  5.  $H_2O$
  6.  $HgSO_4/H_2SO_4/H_2O$

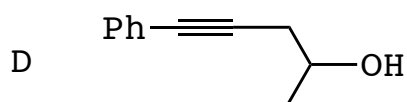
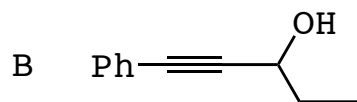
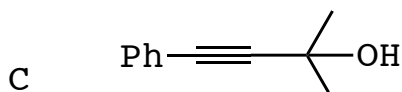
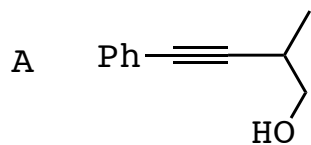
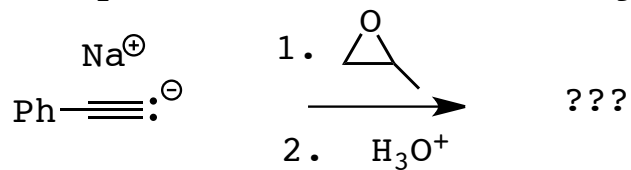
- B**
1.  $Br_2/hv$
  2.  $Na^+ -OMe$
  3.  $Br_2$
  4. Excess  $NaNH_2$
  5.  $H_2O$
  6.  $HgSO_4/H_2SO_4/H_2O$

- D**
1. NBS/hv
  2.  $K^+ -O-t-Bu$
  3. 2 Equiv. HBr
  4. Excess  $NaNH_2$
  5.  $H_2O$
  6.  $HgSO_4/H_2SO_4/H_2O$
-

### QUESTION 2

MC28s

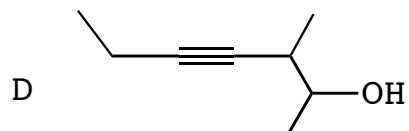
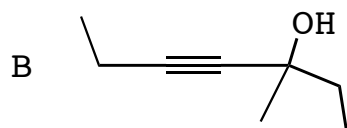
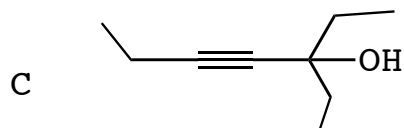
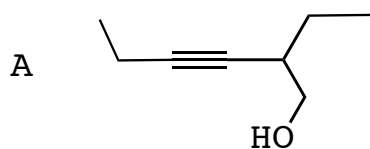
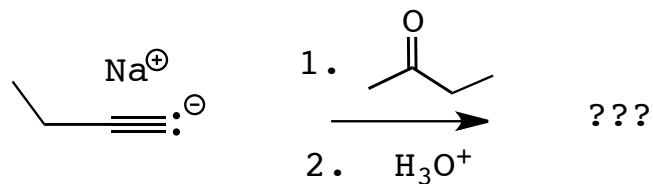
Give the product of the following reaction



### QUESTION 3

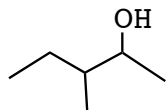
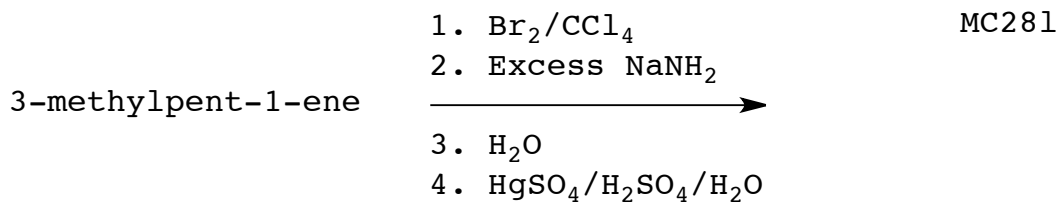
MC28y

Give the product of the following reaction

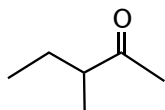


### QUESTION 4

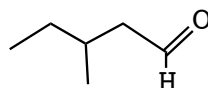
Which will be the product of the following reaction sequence?



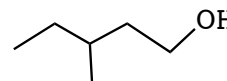
A



B



C

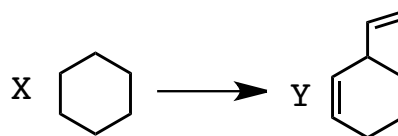


D

### QUESTION 5

MC28k

Which represents the best synthesis of Y from X?



**A**

1.  $\text{Br}_2/\text{h}\nu$
2.  $\text{HC}\equiv\text{C}^- +\text{Na}$
3.  $\text{NBS}/\text{h}\nu$
4.  $\text{HC}\equiv\text{C}^- +\text{Na}$
5.  $\text{H}_2/\text{Pd}/\text{C}$

**B**

1.  $\text{Br}_2/\text{h}\nu$
2.  $\text{Na}^+ -\text{OMe}$
3.  $\text{HBr}/\text{ROOR}$
4.  $\text{HC}\equiv\text{C}^- +\text{Na}$
5.  $\text{Na}/\text{NH}_3(\text{l})$

**C**

1.  $\text{Br}_2/\text{h}\nu$
2.  $\text{t-BuO}^- +\text{K}$
3.  $\text{HBr}/\text{ROOR}$
4.  $\text{HC}\equiv\text{C}^- +\text{Na}$
5.  $\text{H}_2/\text{Lindlar}$

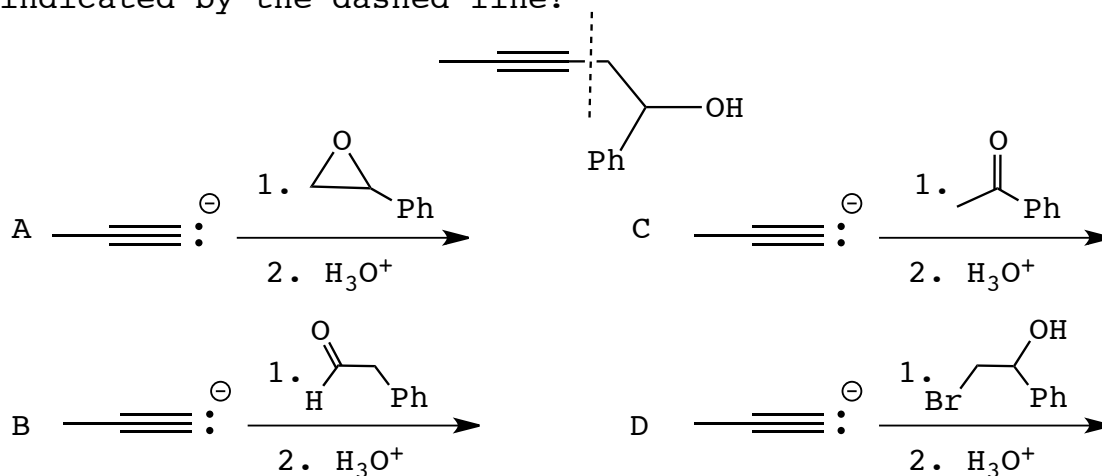
**D**

1.  $\text{Br}_2/\text{h}\nu$
2.  $\text{t-BuO}^- +\text{K}$
3.  $\text{NBS}/\text{h}\nu$
4.  $\text{HC}\equiv\text{C}^- +\text{Na}$
5.  $\text{Na}/\text{NH}_3(\text{l})$

### QUESTION 6

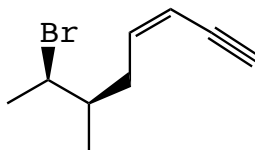
MC28o

Which of the following reactions will make the bond indicated by the dashed line?



### QUESTION 7

Which is the correct IUPAC name for the following structure?



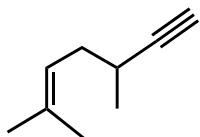
MC28e

- A. (2R)-bromo-(3R)-methyloct-(5Z)-en-7-yne
  - B. (7S)-bromo-(6S)-methyloct-(3Z)-en-1-yne
  - C. (2S)-bromo-(3S)-methyloct-(5E)-en-7-yne
  - D. (7R)-bromo-(6R)-methyloct-(3Z)-en-1-yne
-

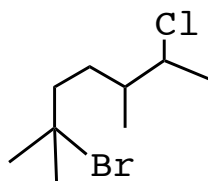
### QUESTION 8

MC28i

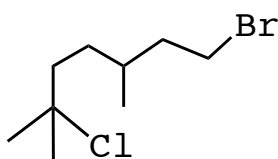
Which best describes the products of the following reaction sequence? Stereochemistry is ignored in this problem.



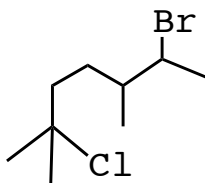
1. 1 Equiv. HCl
  2. 1 Equiv. HI
- 
3. H<sub>2</sub>/Pd/C
  4. 1 Equiv. K<sup>+</sup> <sup>-</sup>O-t-Bu
  5. HBr/ROOR



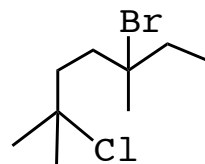
A



B



C



D

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### QUESTION 9

There are **NO INCORRECT** answers to this question, **ALL** answers to this question will be considered correct for grading purposes

**I believe I can earn an A grade in organic chemistry**

- A Never
- B Rarely
- C Sometimes
- D Often
- E Always

### QUESTION 10

There are NO INCORRECT answers to this question, ALL answers to this question will be considered correct for grading purposes

I am confident that I will do well on organic chemistry tests

- A Never
- B Rarely
- C Sometimes
- D Often
- E Always

### QUESTION 11

There are NO INCORRECT answers to this question, ALL answers to this question will be considered correct for grading purposes

I believe that I can master organic chemistry knowledge and skills

- A Never
- B Rarely
- C Sometimes
- D Often
- E Always

### QUESTION 12

There are NO INCORRECT answers to this question, ALL answers to this question will be considered correct for grading purposes

I'm sure I can understand organic chemistry

- A Never
- B Rarely
- C Sometimes
- D Often
- E Always