Dr. Starkey, CHM 3140 Organic Chem. I, Cal Poly Pomona
Chapter 8 Reactions of Alkenes, Step 2 – Practice Problems

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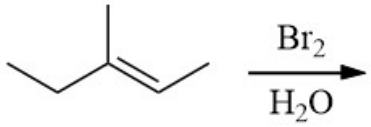
LAURIESTARKE263 to 37607

Predict the major product.

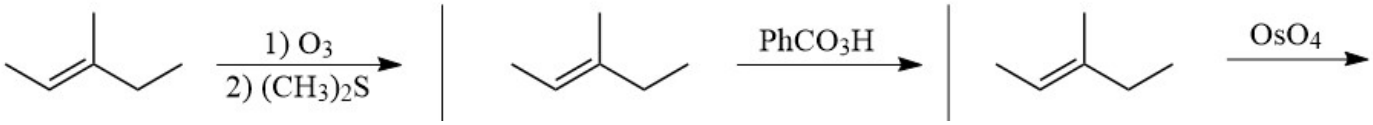
1



Mechanism:

Predict the major products for the following reactions.

2



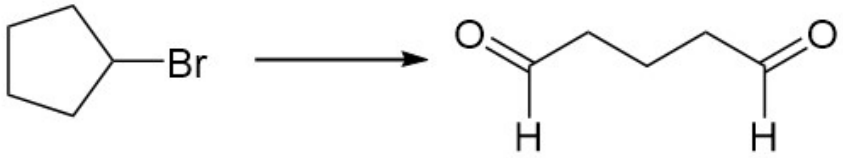
Which reagents would be best to achieve the following synthesis?

3

4

5 Which reagents would be best to achieve the following synthesis?

6



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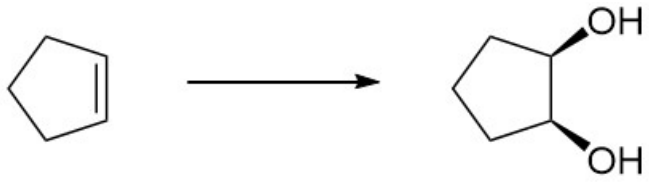

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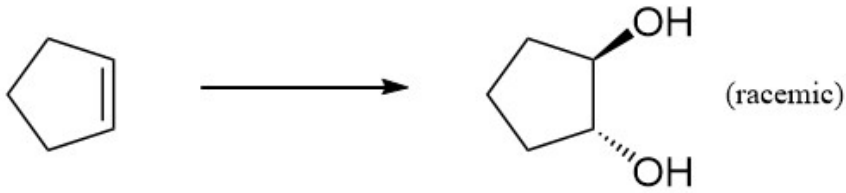
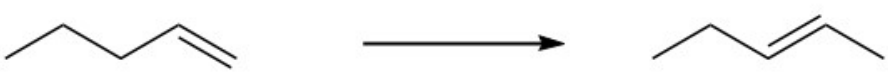
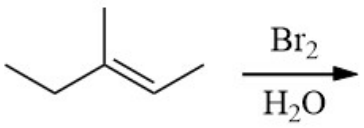


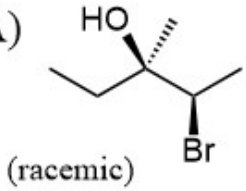
(racemic)

9

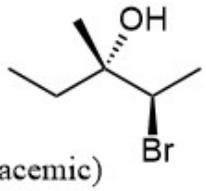


1 Predict the major product.

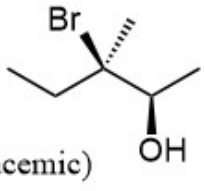


A) 

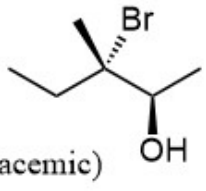
(racemic)

B) 

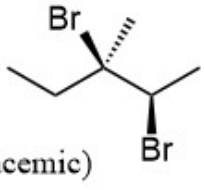
(racemic)

C) 

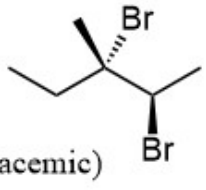
(racemic)

D) 

(racemic)

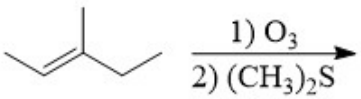
E) 

(racemic)

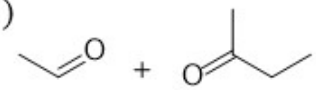
F) 

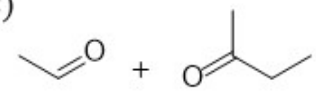
(racemic)

2 Predict the major products for the following reactions.

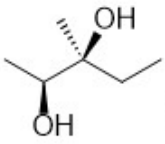


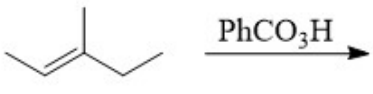
A) 
(rac.)

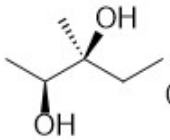
B) 

C) 

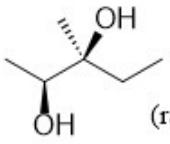
D) 
(rac.)

E) 
(rac.)




(rac.)


(rac.)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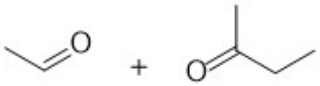
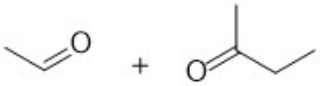
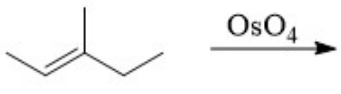
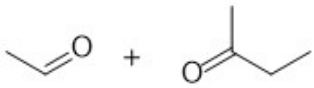
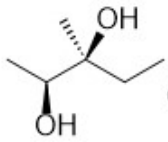


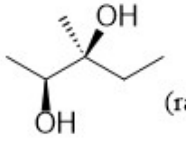







(rac.)


(rac.)


(rac.)


(rac.)

Which reagents would be best to achieve the following synthesis?

3

A) 1) HBr, ROOR
2) *t*-BuOK

C) 1) HBr
2) *t*-BuOK

B) 1) HBr, ROOR
2) NaOEt

D) 1) HBr
2) NaOEt

Which reagents would be best to achieve the following synthesis?

4

A) 1) TsCl, py
2) *t*-BuOK
3) HBr

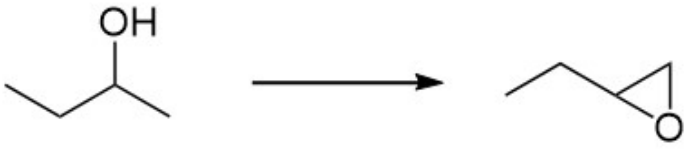
C) 1) TsCl, py
2) *t*-BuOK
3) HBr, ROOR

B) 1) conc. H_2SO_4, heat
2) HBr, ROOR

D) 1) conc. H_2SO_4, heat
2) HBr

Which reagents would be best to achieve the following synthesis?

5



A) 1) *t*-BuOK
2) $KMnO_4$

B) 1) TsCl, py
2) *t*-BuOK
3) MCPBA

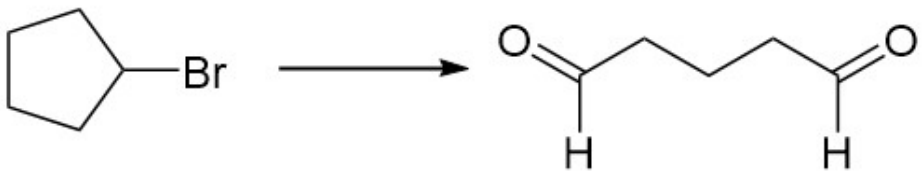
C) 1) *t*-BuOK
2) RCO_3H

D) 1) H_2SO_4, heat
2) $KMnO_4$

E) 1) H_2SO_4, heat
2) MCPBA

Which reagents would be best to achieve the following synthesis?

6



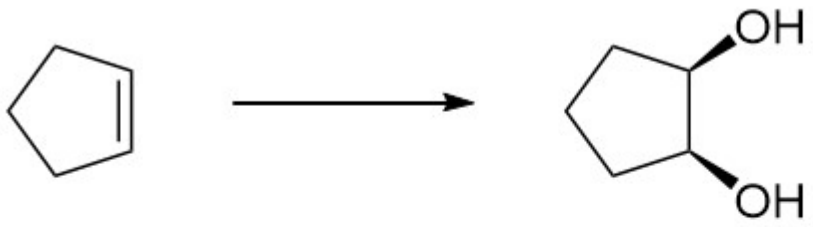
A) 1) conc. H_2SO_4
2) BH_3-THF
3) H_2O_2, NaOH

B) 1) t-BuOK
2) O_3
3) Zn, H_2O

C) 1) t-BuOK
2) RCO_3H
3) H_3O^+

D) 1) t-BuOK
2) RCO_3H

7 Which reagent(s) would be best to achieve the following synthesis?



A) 1) $KMnO_4$
2) H_3O^+

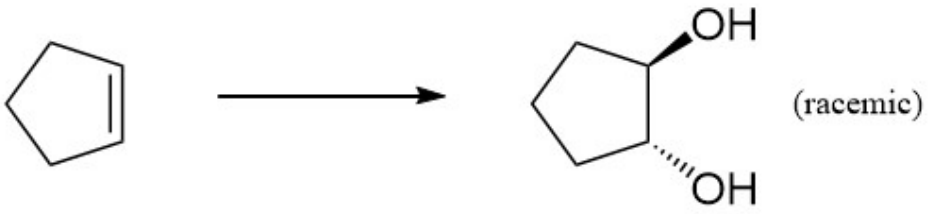
B) $KMnO_4$

C) mCPBA

D) 1) O_3
2) DMS

E) 1) mCPBA
2) H_3O^+

8 Which reagent(s) would be best to achieve the following synthesis?



A) 1) $KMnO_4$
2) H_3O^+

B) $KMnO_4$

C) 1) $KMnO_4$
2) TsCl, py
3) NaOH, H_2O

D) 1) O_3
2) DMS

E) 1) mCPBA
2) H_3O^+

9

Which reagents would be best to achieve the following synthesis?

A) 1) HBr, ROOR
2) *t*-BuOK

C) 1) HBr
2) *t*-BuOK

B) 1) HBr, ROOR
2) NaOEt

D) 1) HBr
2) NaOEt