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Chapter 8 Alkene Reactions - Part 1

Provide the IUPAC name for the following compound.



Predict the major product and briefly explain.

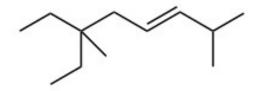
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Predict the major products for the following reactions.

$$\begin{array}{c|c} & & & \\ \hline & &$$

Provide reagents to achieve each transformation. More than one step may be required.

Provide the IUPAC name for the following compound.



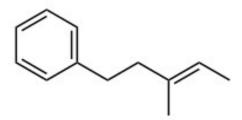
1

- A) 3-ene-6-ethyl-2,6-dimethyloctane
- B) 6-ethyl-2,6-dimethyl-3-octene
- C) 3-ethyl-3,7-dimethyl-5-octene
- D) 5-ene-3-ethyl-3,7-dimethyloctane
- E) None of the above

configuration

- A) (E)
- B)(Z)
- C) none

Provide the IUPAC name for the following compound.



- A) 3-methyl-6-phenyl-2-hexene
- B) 1,3-dimethyl-4-phenyl-1-butene
- C) 1,3-dimethyl-4-phenyl-1-pentene
- D) 3-methyl-5-phenyl-2-pentene
- E) 3-methyl-1-phenyl-3-pentene

configuration

- A) (E)
- B)(Z)
- C) none

Provide the IUPAC name for the following compound.

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A) 6-bromo-3-(3-bromopropyl)-1-hexyne

- B) 6-bromo-3-(3-bromopropane)-1-hexyne
- C) 2-(1-bromopropane)-5-bromo-1-pentyne
- D) 3,3-dibromopropyl-1-propyne
- E) 1,7-dibromo-4-ethynylheptane
- Predict the major product and briefly explain.

A)

because Cl is large so there is less steric hindrance (lower Energy T.S.)

B)

because

C)

because

D)

hecause

E)

because Dr. Markovnikov told me so

Predict the major products for the following reactions.

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