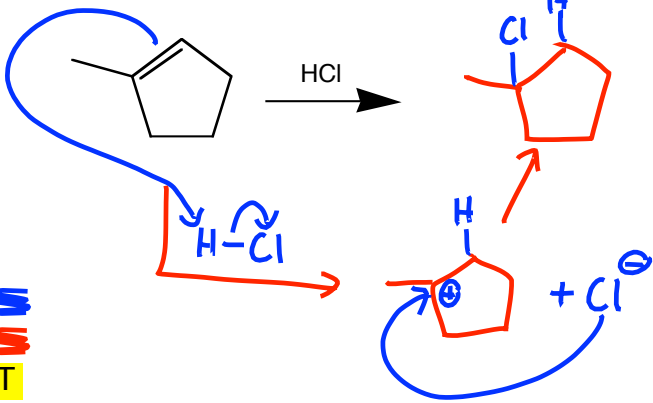


Answers

Organic Chemistry I

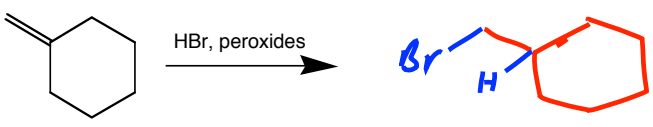
Test 3 Extra Alkenes Reactions Practice Problems. (First half of the alkenes reactions only)

1. Draw the major product for the reaction shown. (There may be some side products or isomers formed in addition to the major products, but you don't need to draw them.) Draw the mechanism.

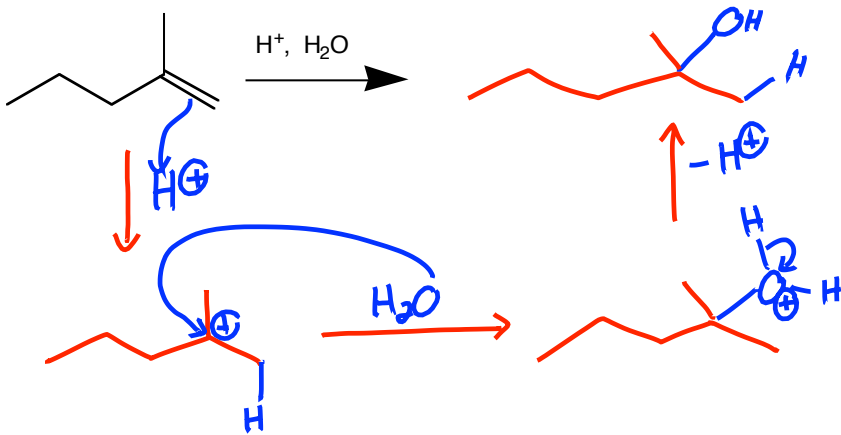


- 1. Protonate on less substituted end to make carbocation on more substituted end.
- 2. Capture the cation

2. Draw the major product for the reaction shown. (There may be some side products or isomers formed in addition to the major products, but you don't need to draw them.) No mechanism required.

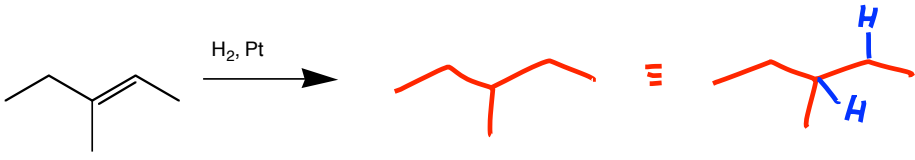


3. Draw the major product for the reaction shown. (There may be some side products or isomers formed in addition to the major products, but you don't need to draw them.) Draw the mechanism.

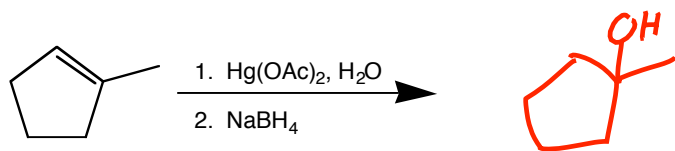


- 1. Protonate on less substituted end to make carbocation on more substituted end.
- 2. Capture the cation. Capture by neutral water results in cationic product.
- 3. Deprotonate to get back to neutral.

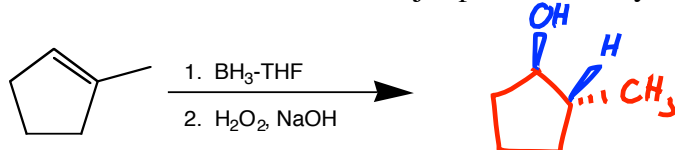
4. Draw the major product for the reaction shown. No mechanism required.



5. Draw the major product for the reaction shown. (There may be some side products or isomers formed in addition to the major products, but you don't need to draw them.) No mechanism required.

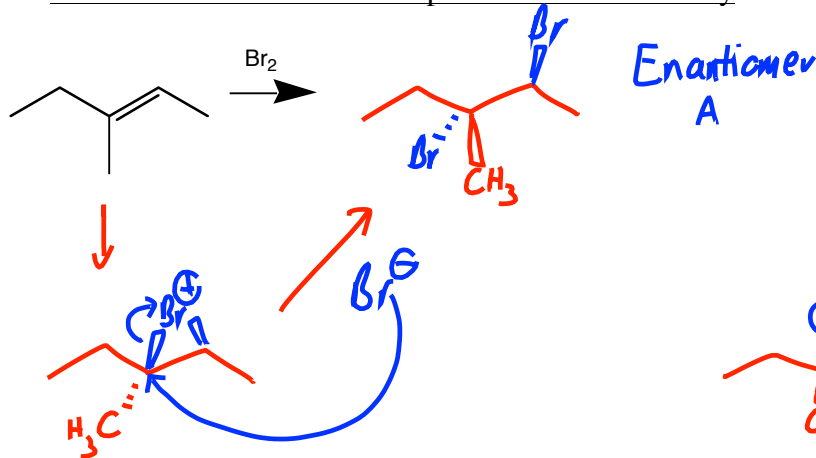


6. Draw the major product for the reaction shown. (There may be some side products or isomers formed in addition to the major products, but you don't need to draw them.)

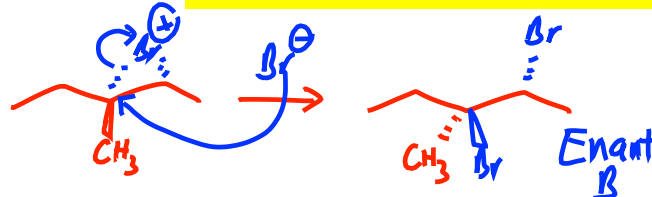


1. Stereochemistry must be designated
2. Either enantiomer is fine.

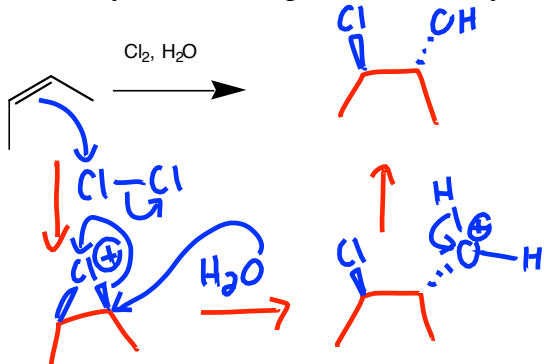
7. Draw the major product for the reaction shown. Include stereochemistry. Draw the mechanism, and make sure it accounts for the product stereochemistry.



1. Stereochemistry must be designated
2. Either enantiomer is fine.
3. Really ugly to draw the stereochem of the 3-membered ring. But for the enantiomer I drew, you'd need to show the bromide anion attacking the more substituted end, and you'd need to the original bromine to be in front.



8. Draw the major product for the reaction shown. Include stereochemistry. Draw the mechanism, and make sure it accounts for the product stereochemistry. Also, make sure that your mechanism really gives the product that you show. (You may actually want to work the mechanism first, so you make sure you draw the product correctly.)



1. Stereochemistry must be designated
2. Either enantiomer is fine.
3. For the enantiomer I drew, you'd need to show the chloride on the front, and have the water attack the right carbon. Your mechanism and product stereochemistry must be internally consistent.