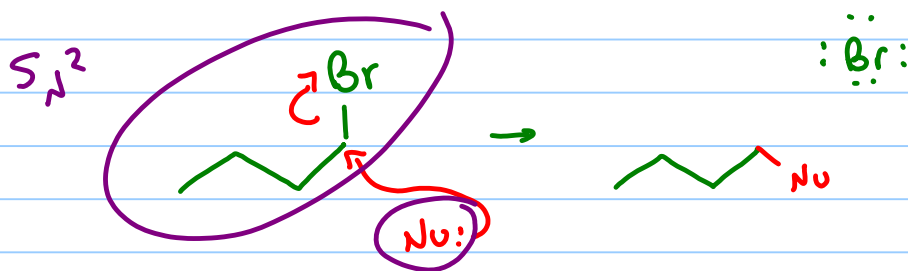
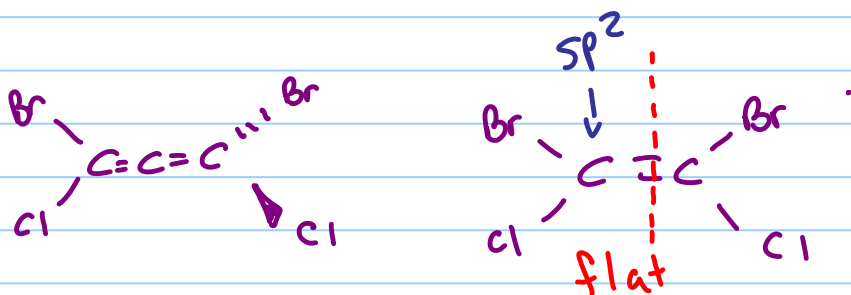
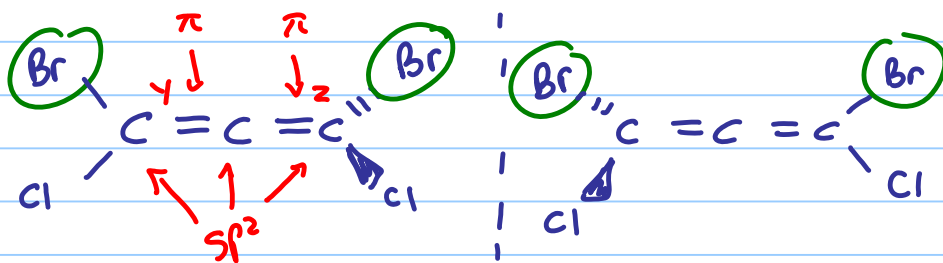


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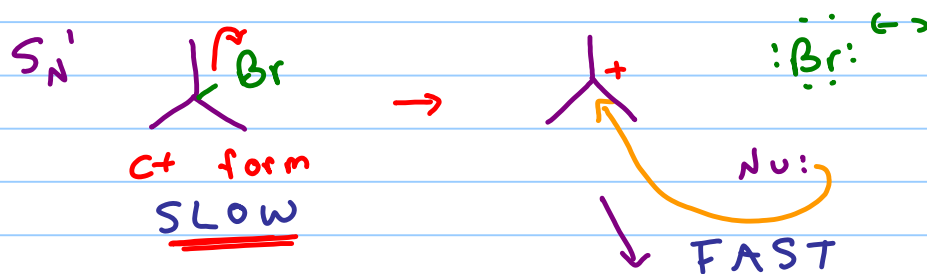
ORG 1 REVIEW

8 OCT 2012

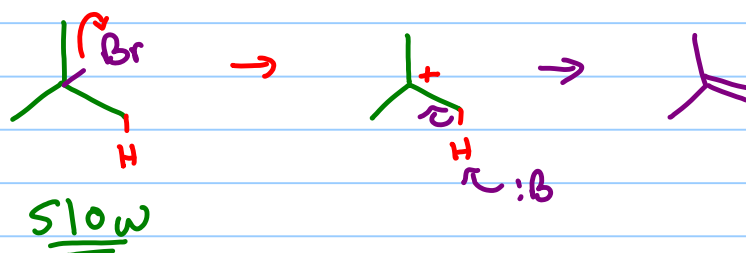
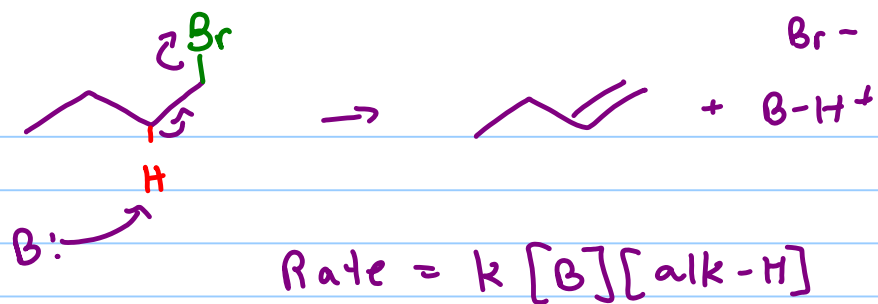
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$$\uparrow \text{Rate} = k \uparrow [\text{Nu}] [\text{alk-H}] \uparrow$$

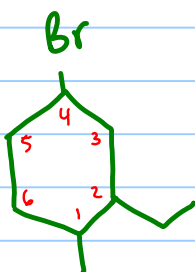


$$\text{Rate} = k [\text{alk-H}]$$



$\text{Rate} = k [\text{alk-H}]$

$\text{C-C} = \text{alkane}$



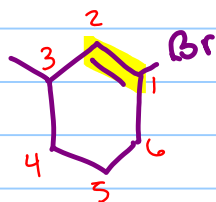
cyclohexane

1-methyl

2-ethyl

4-bromo

4-bromo-2-ethyl-1-methylcyclohexane



$\text{C=C}$  alkene

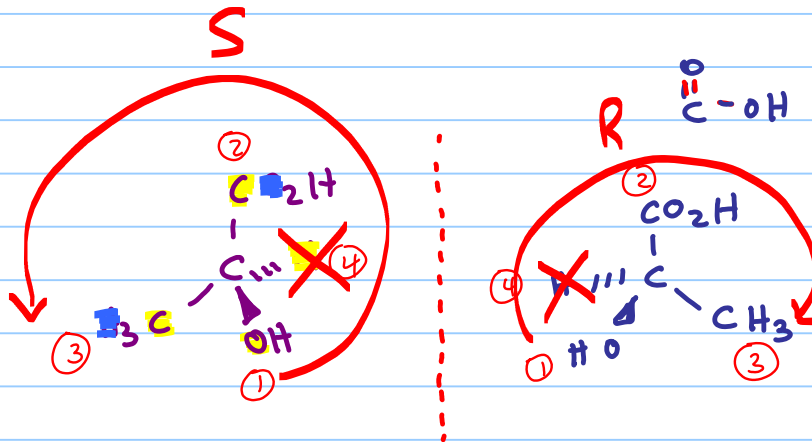
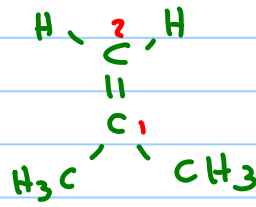
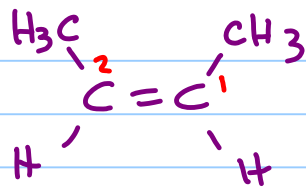
cyclohex

ene

1-bromo

3-methyl

1-bromo-3-methylcyclohexene



Enantiomers

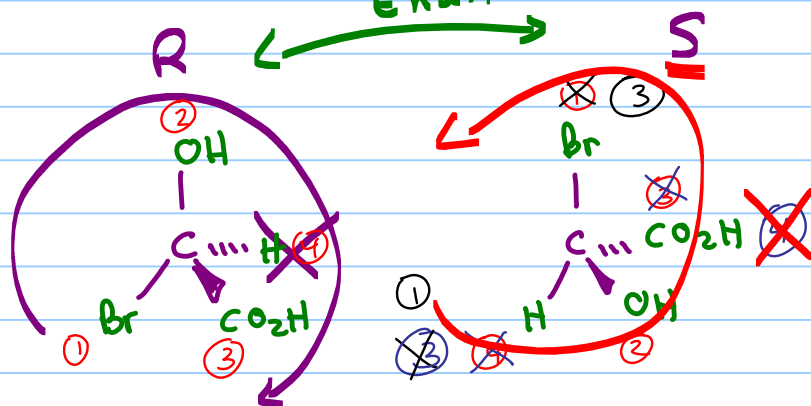


Hand



R & S = optical activity

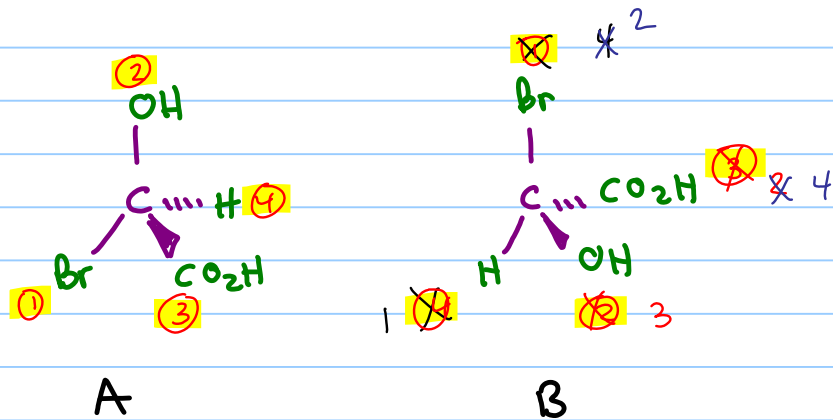
Enantiomers



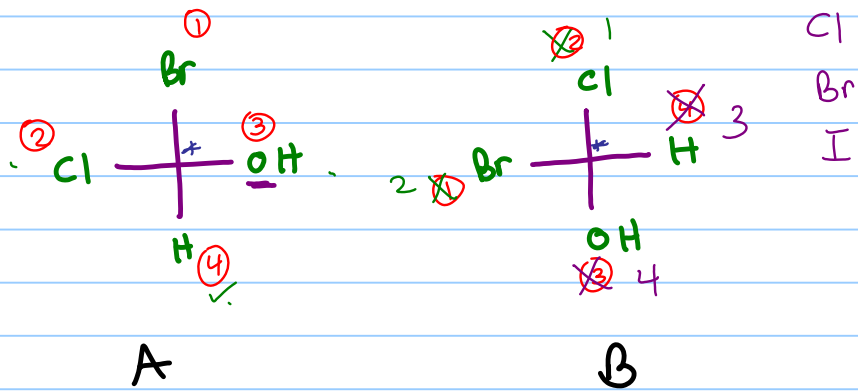
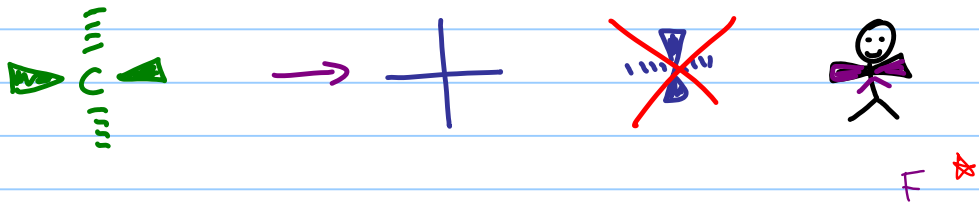
swaps = 11 = same

- 1 swap = enantiomer
- 2nd swap = starting material
- 3rd swap = enant . . . .

even # swaps = same  
 odd # swaps = enan

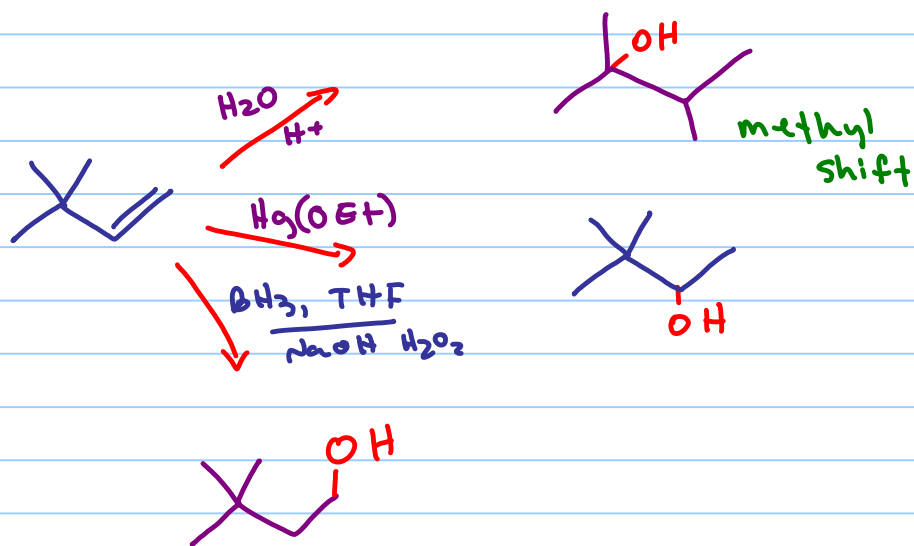


Swap III  
 odd # swaps = enan



swaps II = same

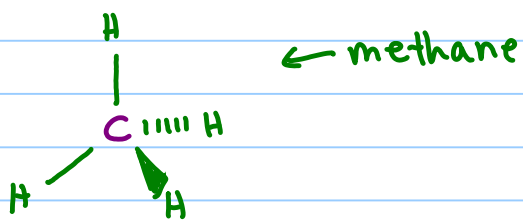
# 3,3-dimethyl-1-butene



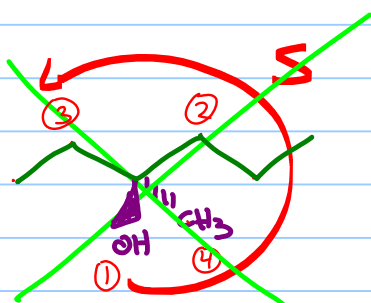
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$\text{CH}_4$

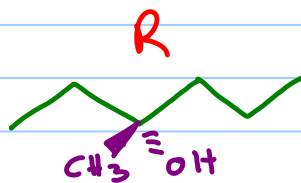


(R)-3-methyl-3-hexanol



guess  
check

1 swap = enan



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diastereomers

2 chiral units = multiple chiral centers

