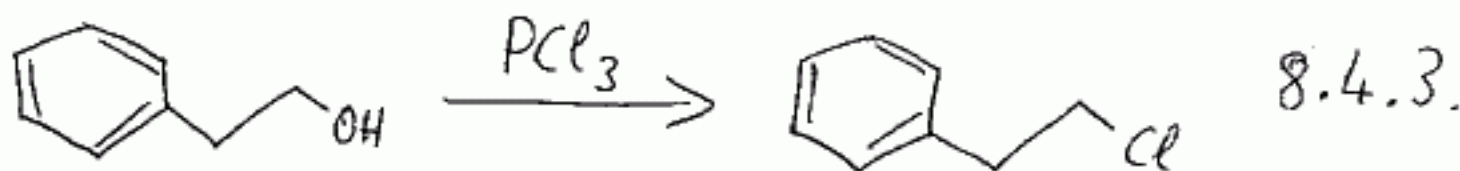
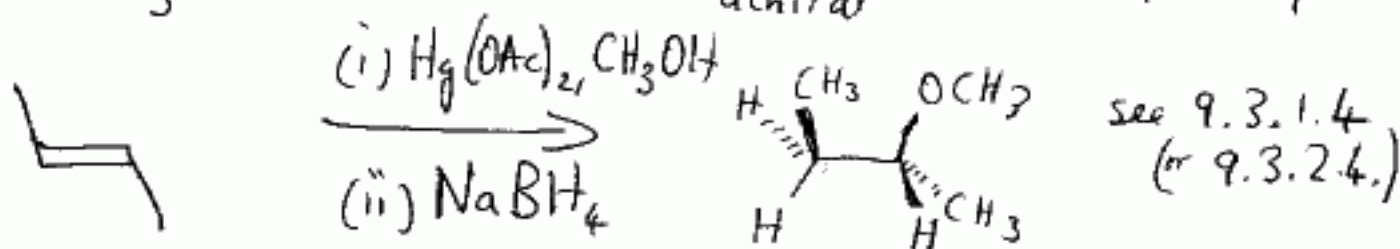
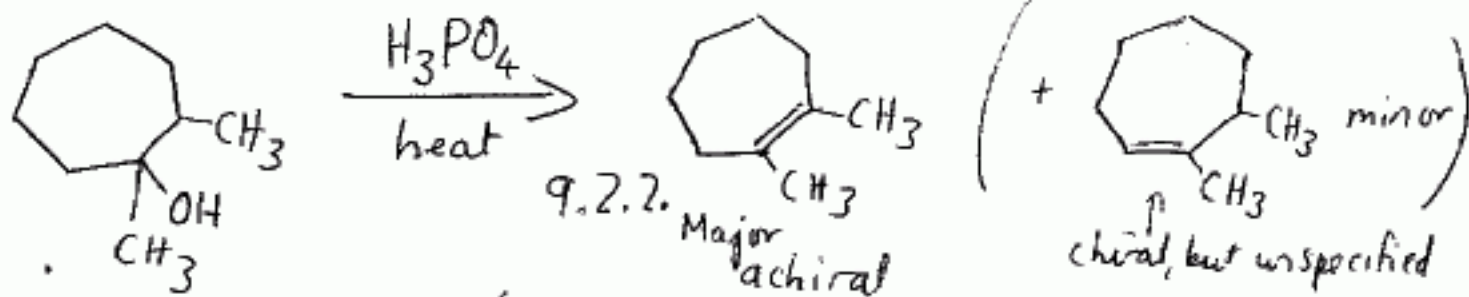
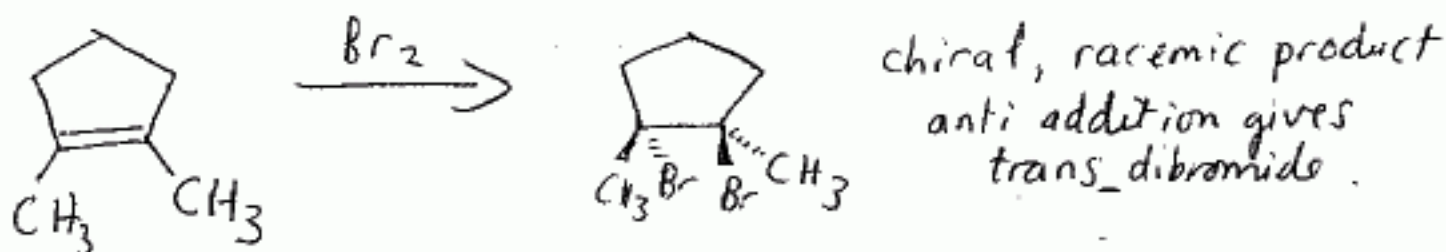
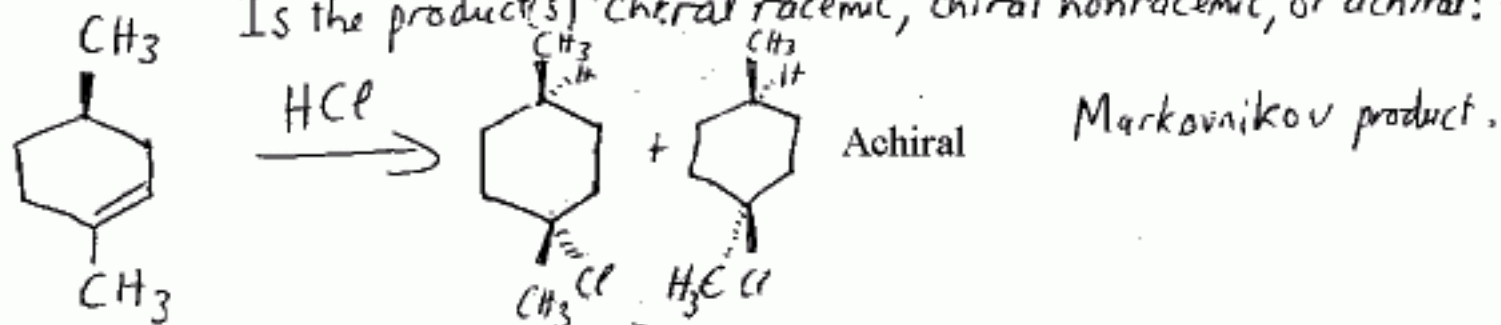
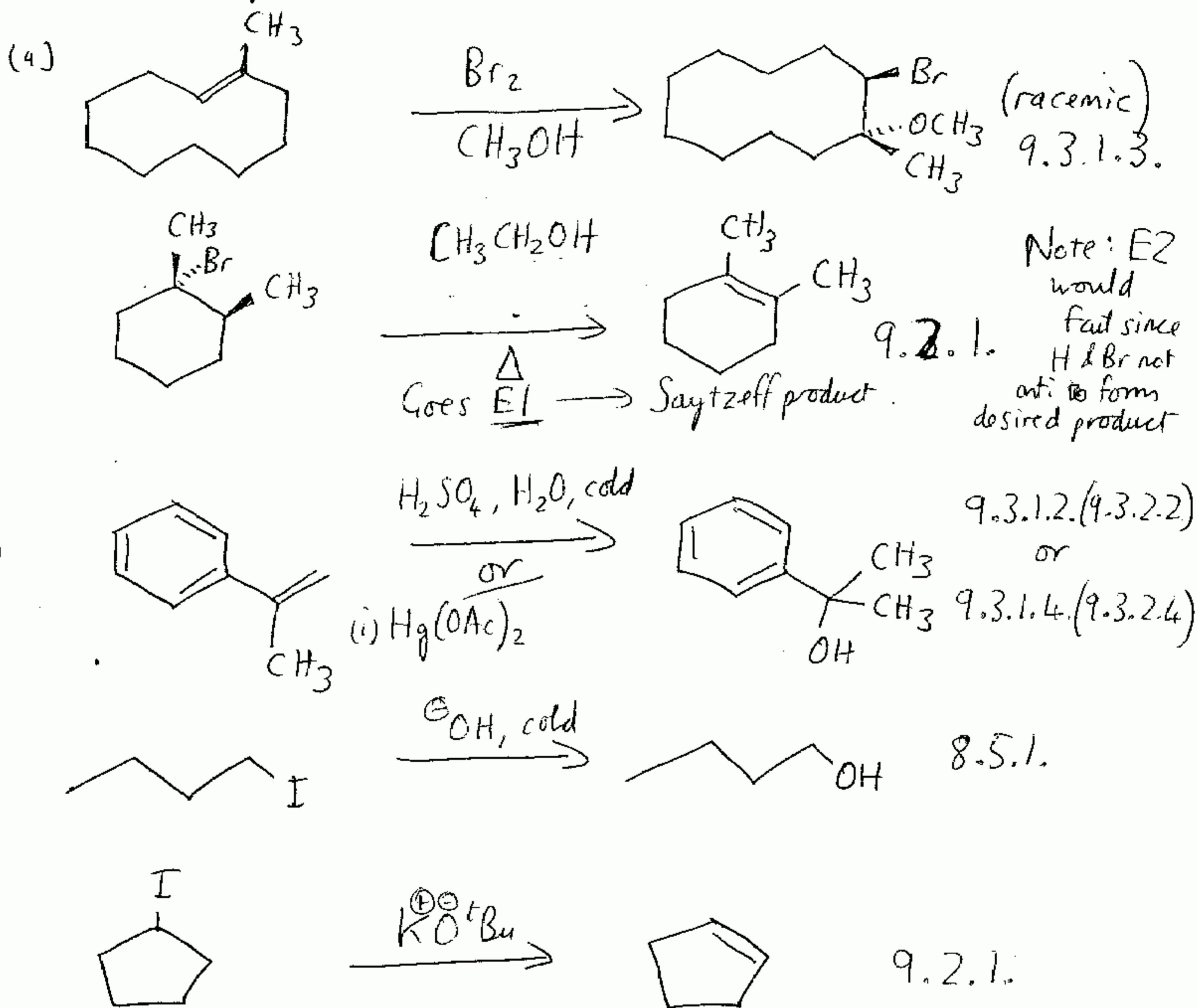


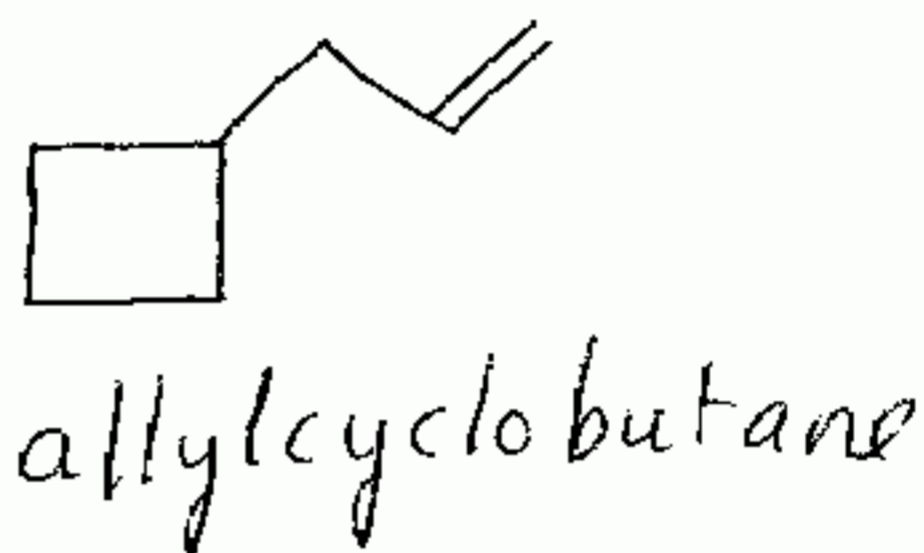
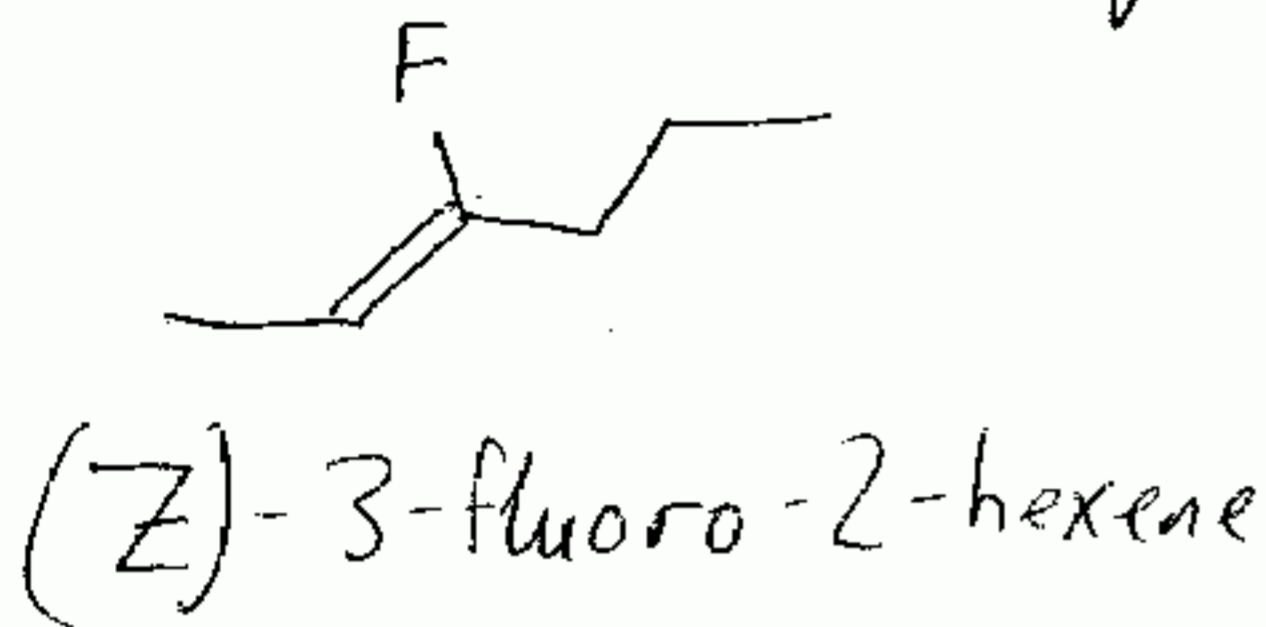
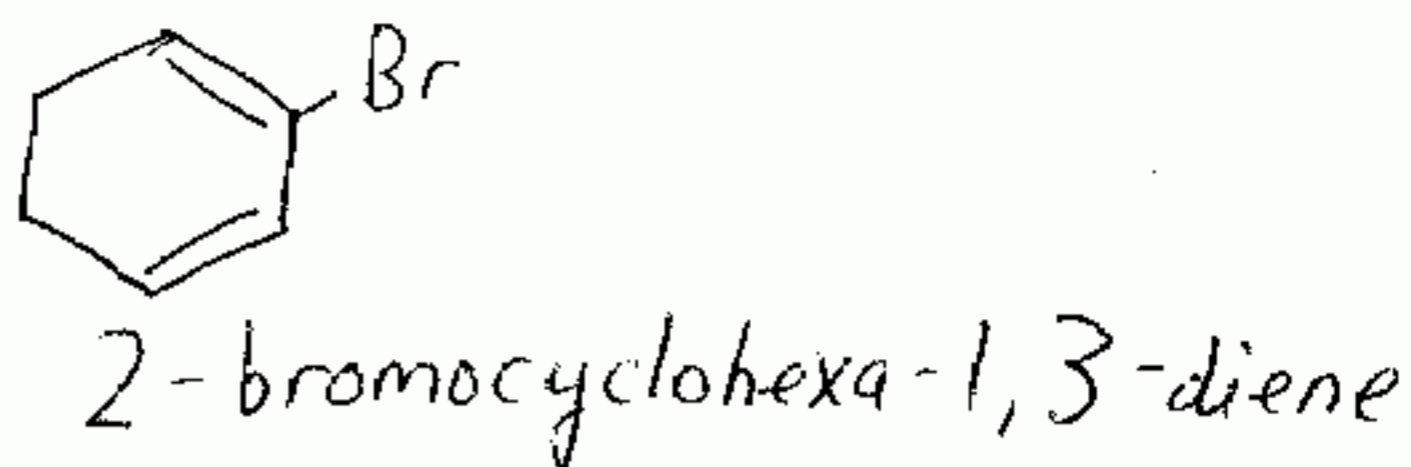
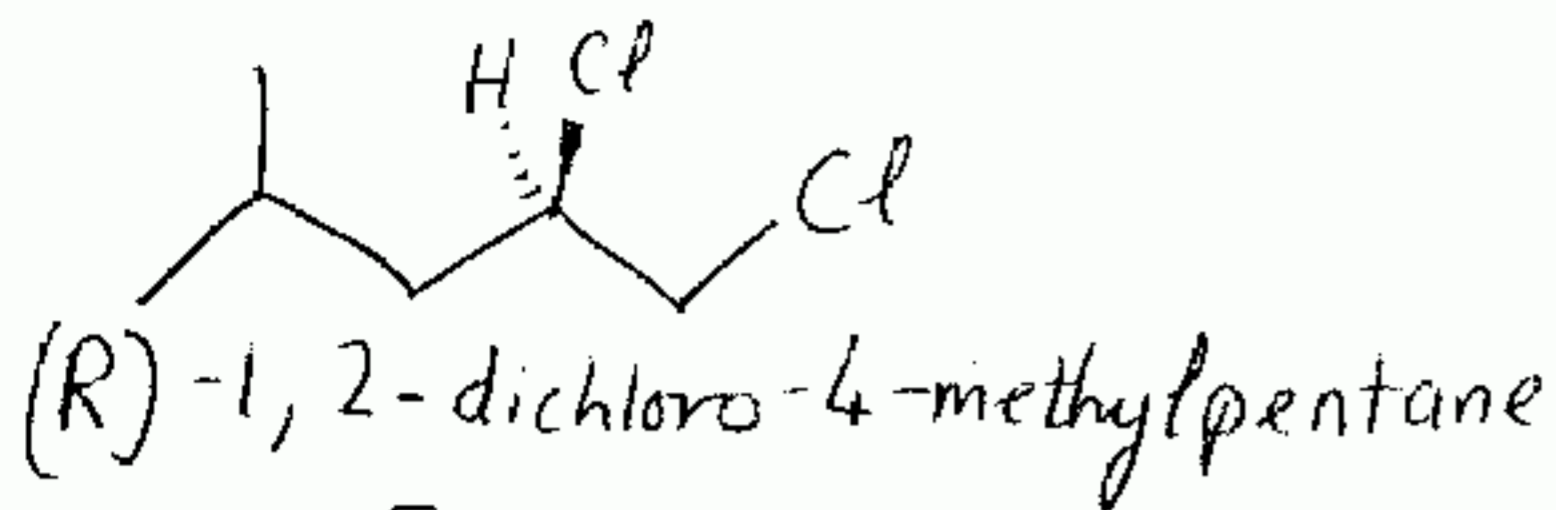
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Is the product(s) chiral, racemic, chiral nonracemic, or achiral?



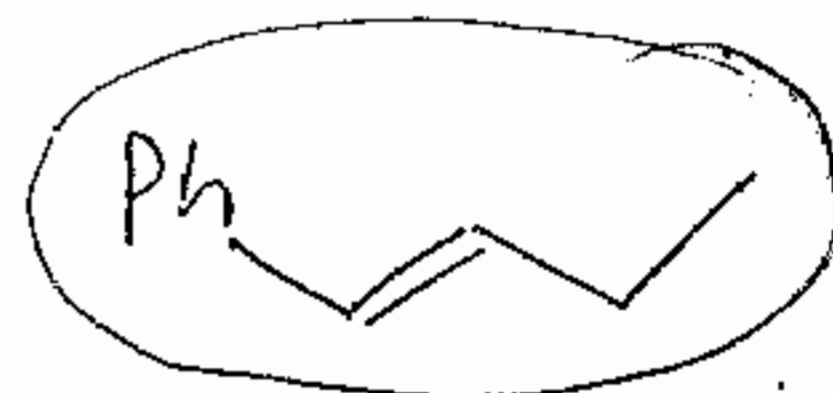
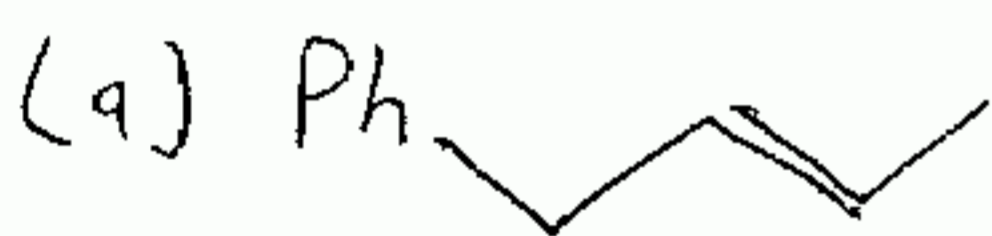
2. How might you carry out the following conversions?



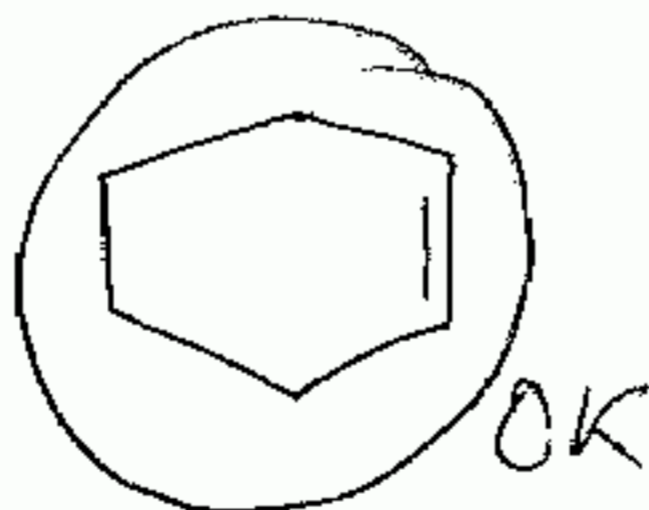
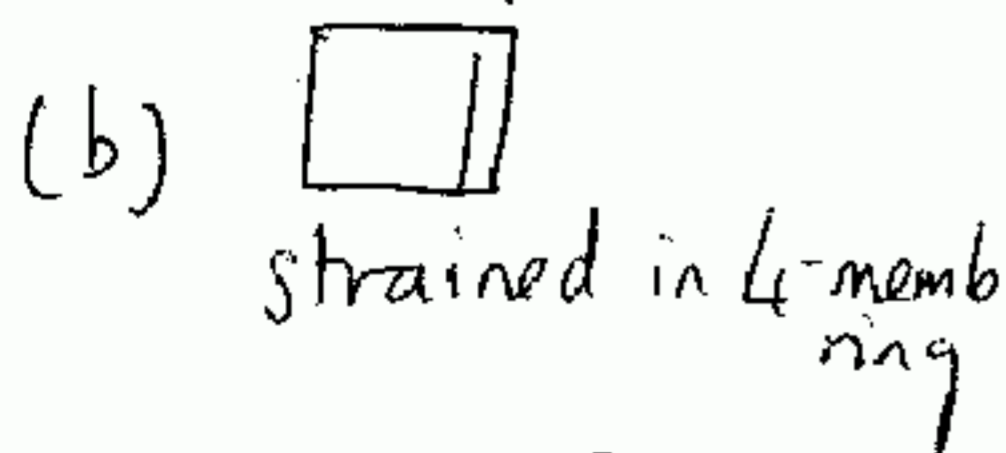
3. Name the following compounds



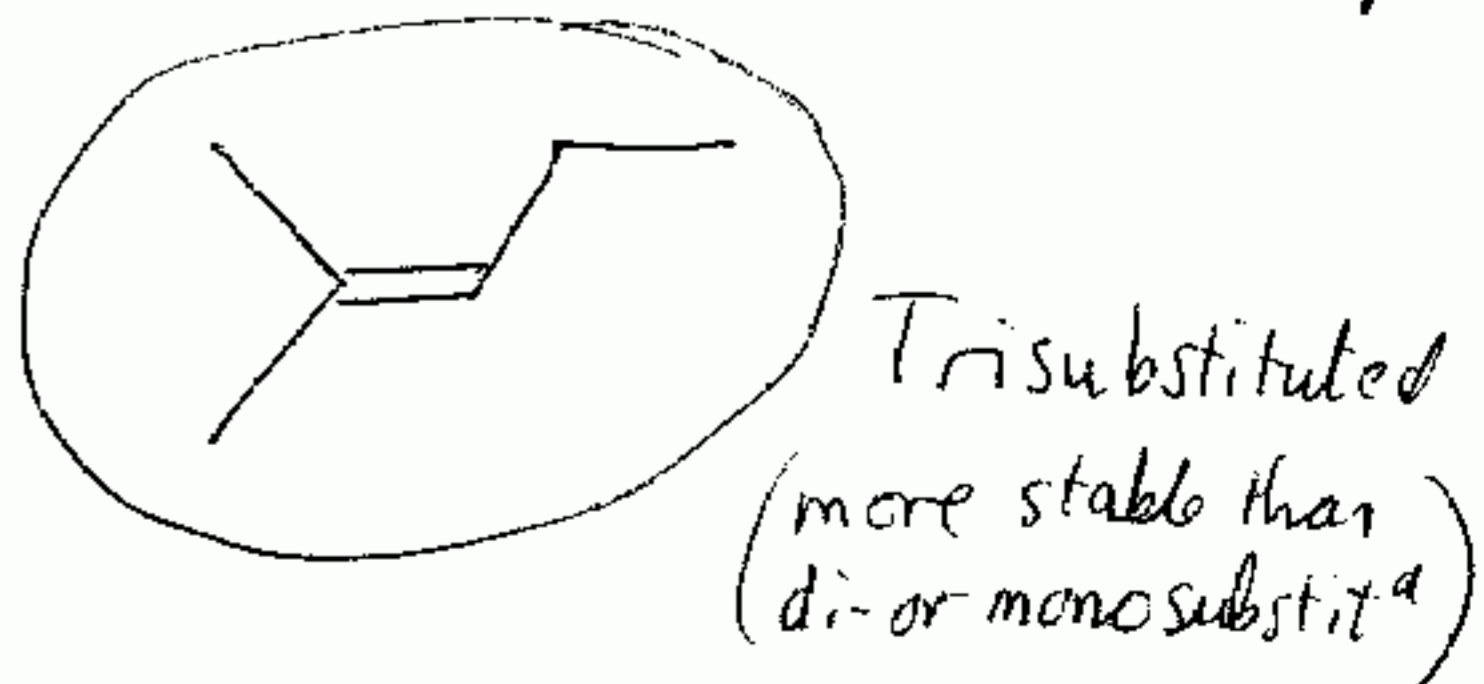
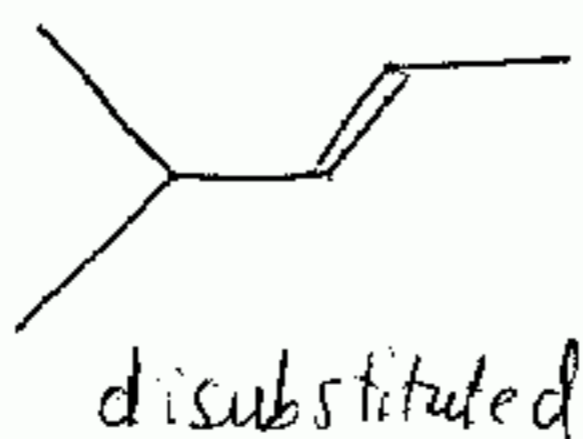
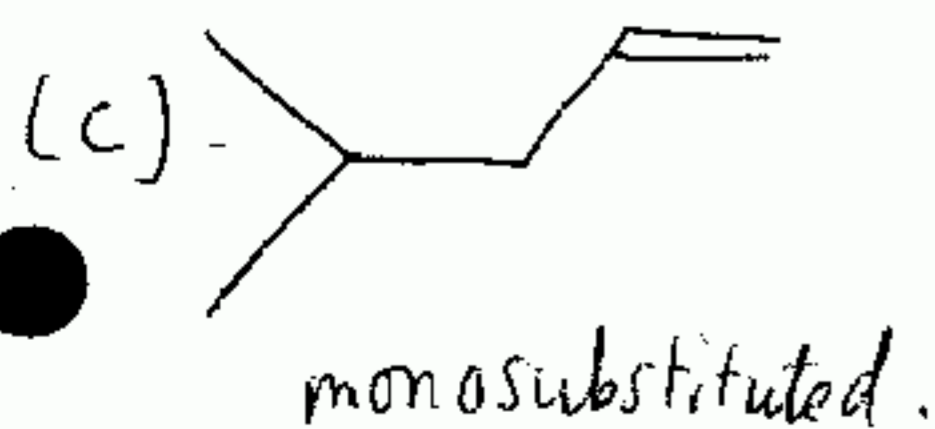
4. Which is the most stable structure in each of the following series? (see 9.1.4.)



Conjugated with arom. ring.
(also trans)

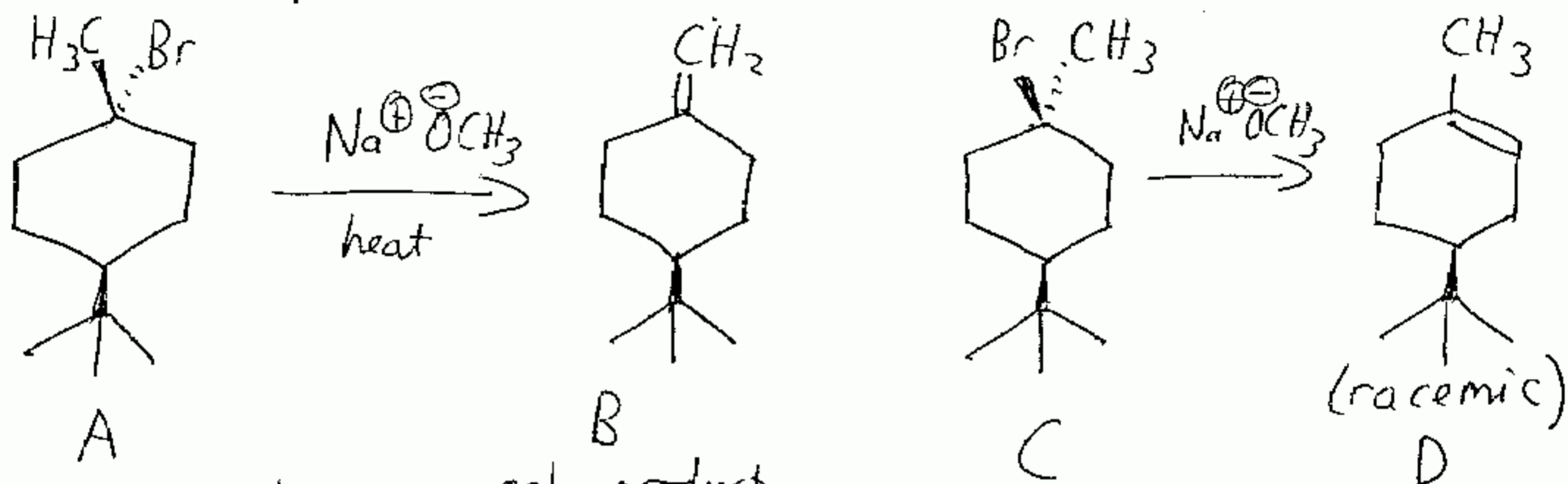


trans double bond is impossible in a 6 memb. ring

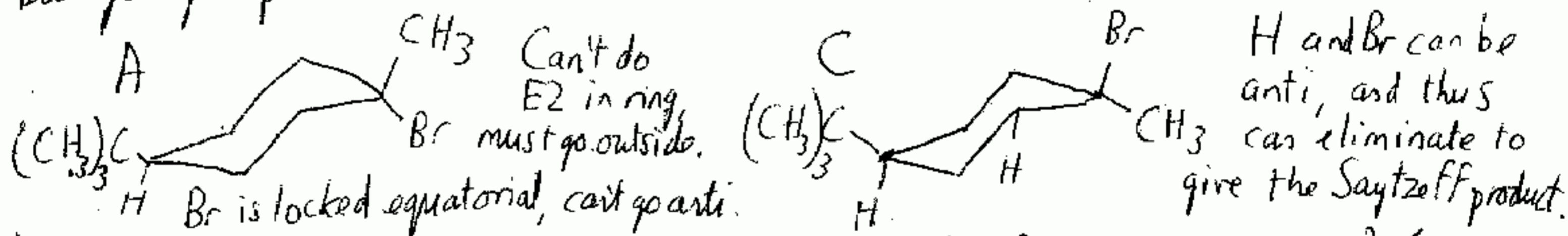


5. Explain the following observations: (hint: models will help in both)

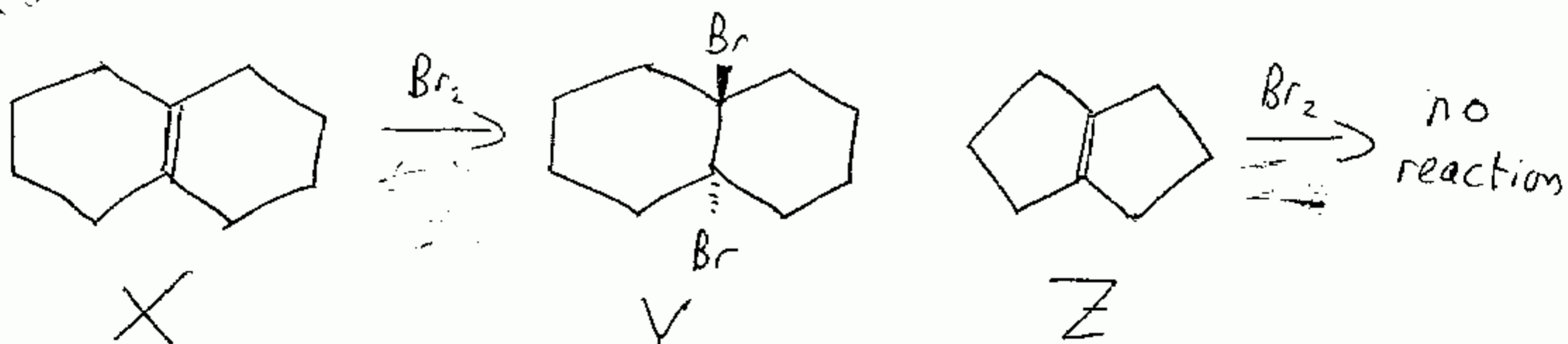
(a) Compound A gives B upon heating with $\text{Na}^{\oplus} \text{OCH}_3^{\ominus}$ yet compound C gives mainly the trisubstituted alkene D.



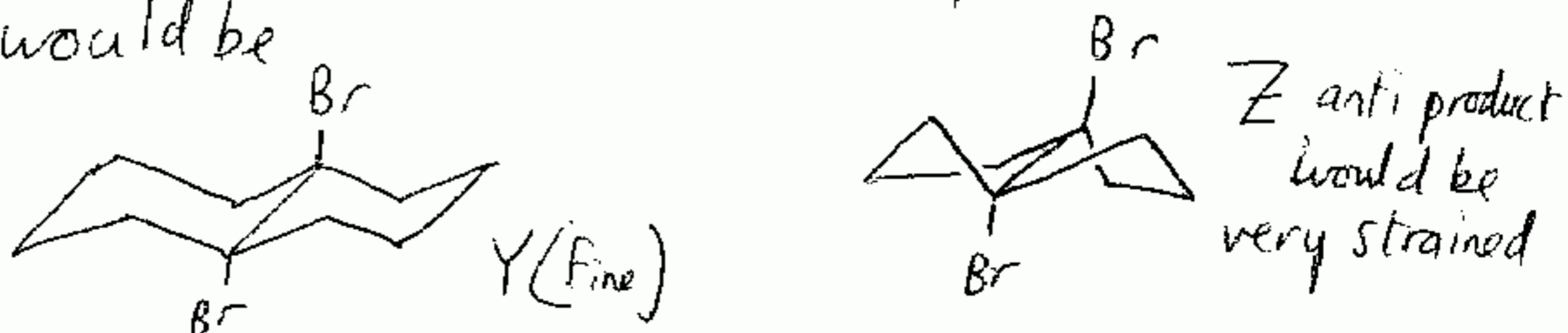
The key point here is to realize that the bulky t -butyl group locks the conformation, since t -Bu must be equatorial only product observed.



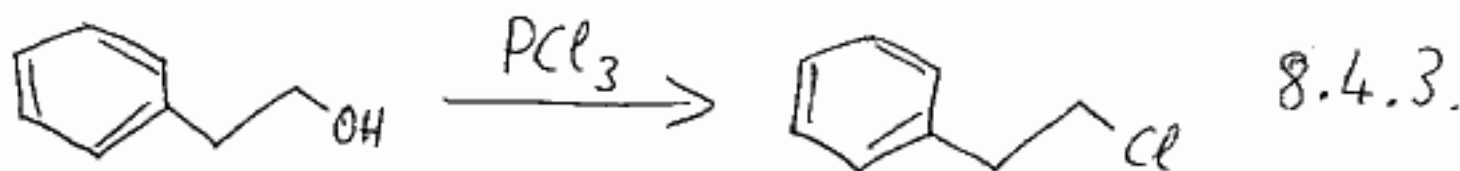
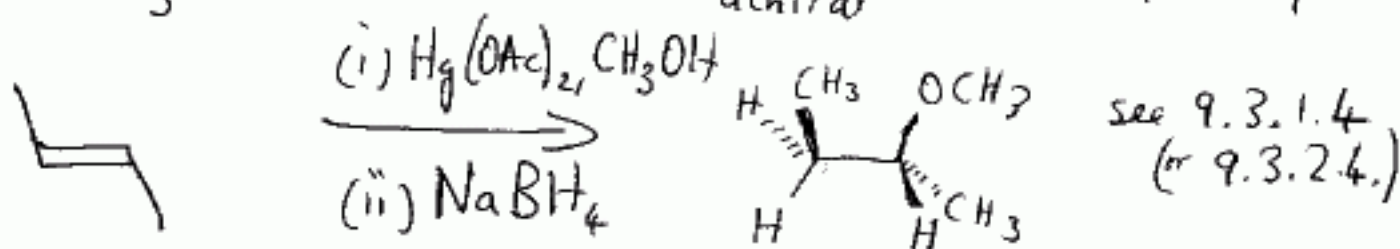
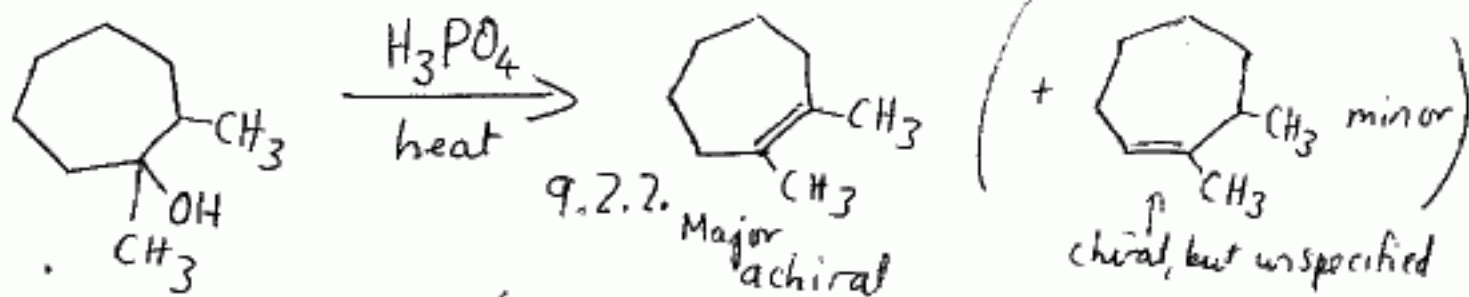
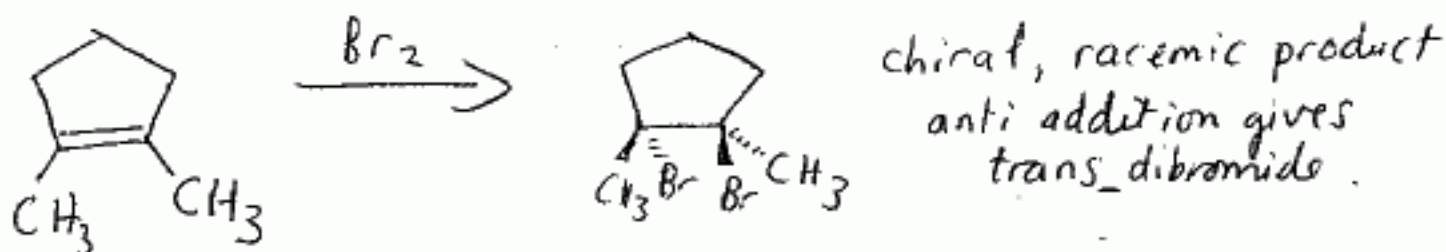
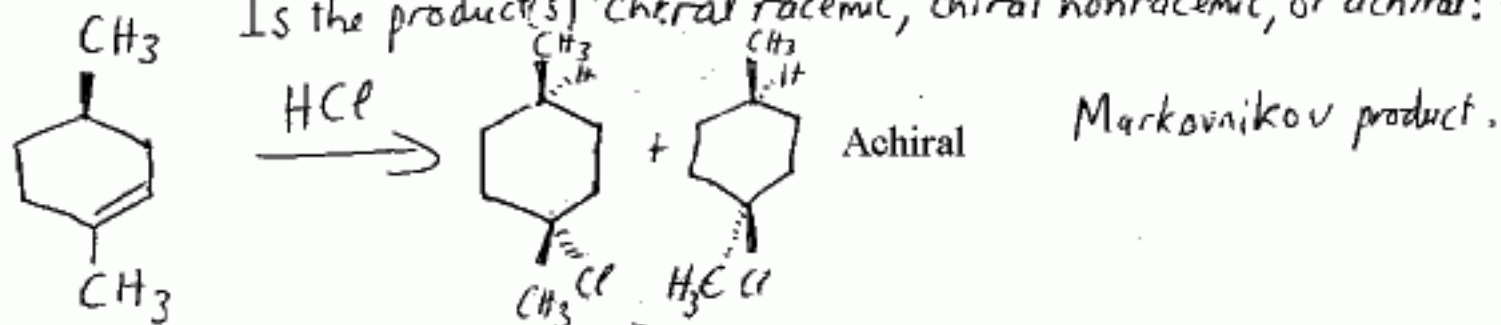
(b) Compound X reacts rapidly with Br_2 to produce Y, but compound Z fails to react in the cold.



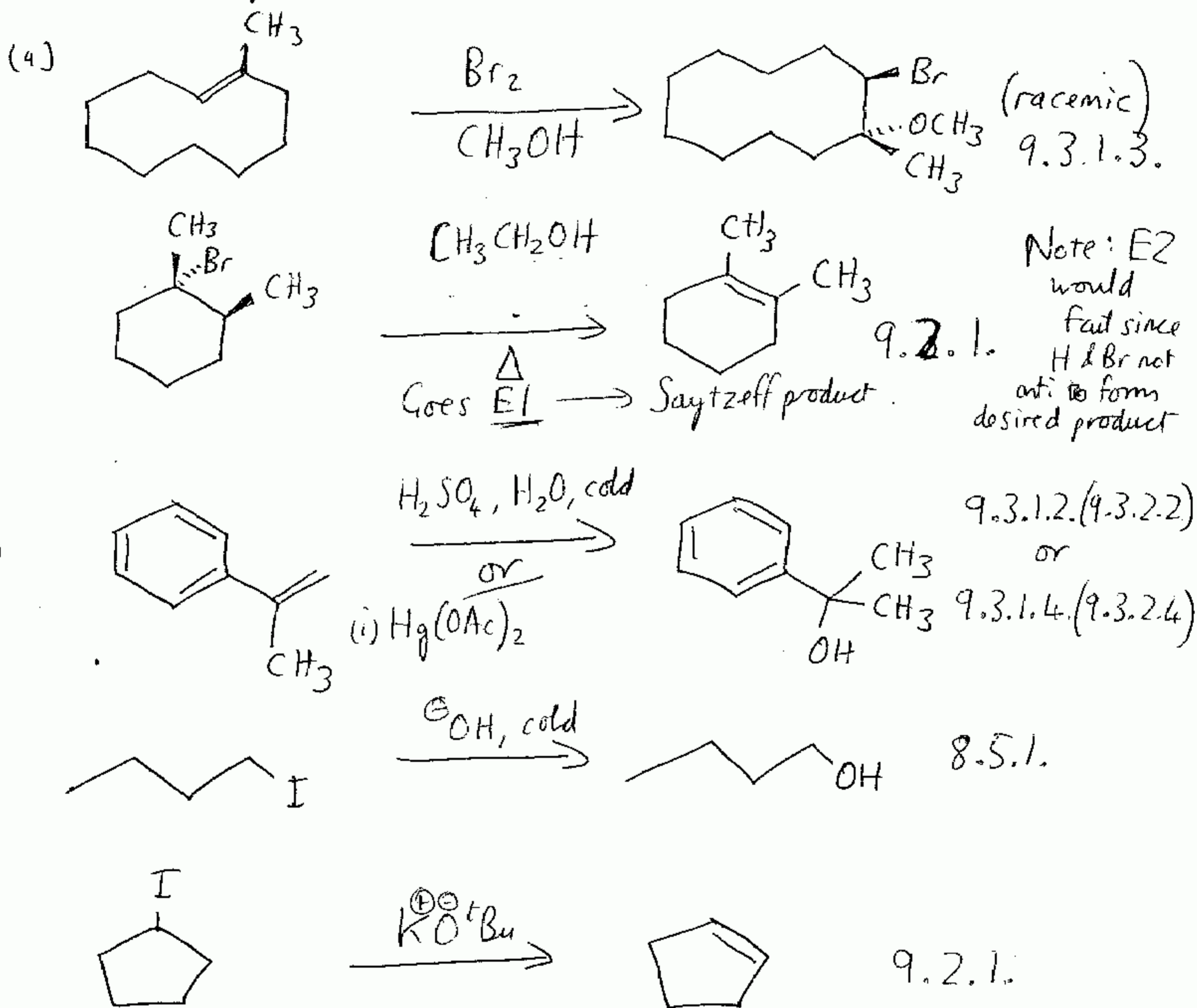
The product must be anti. This is OK for Y, but for Z the ring strain would be too much.



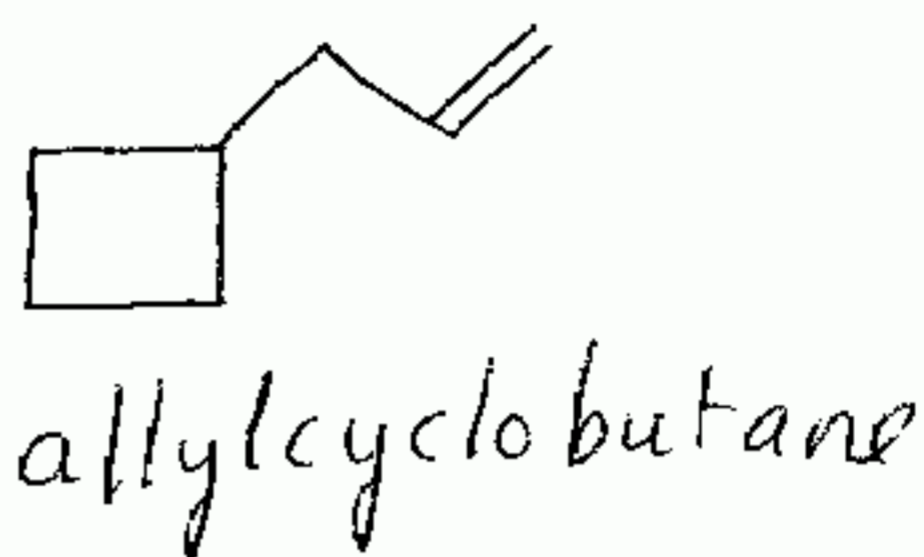
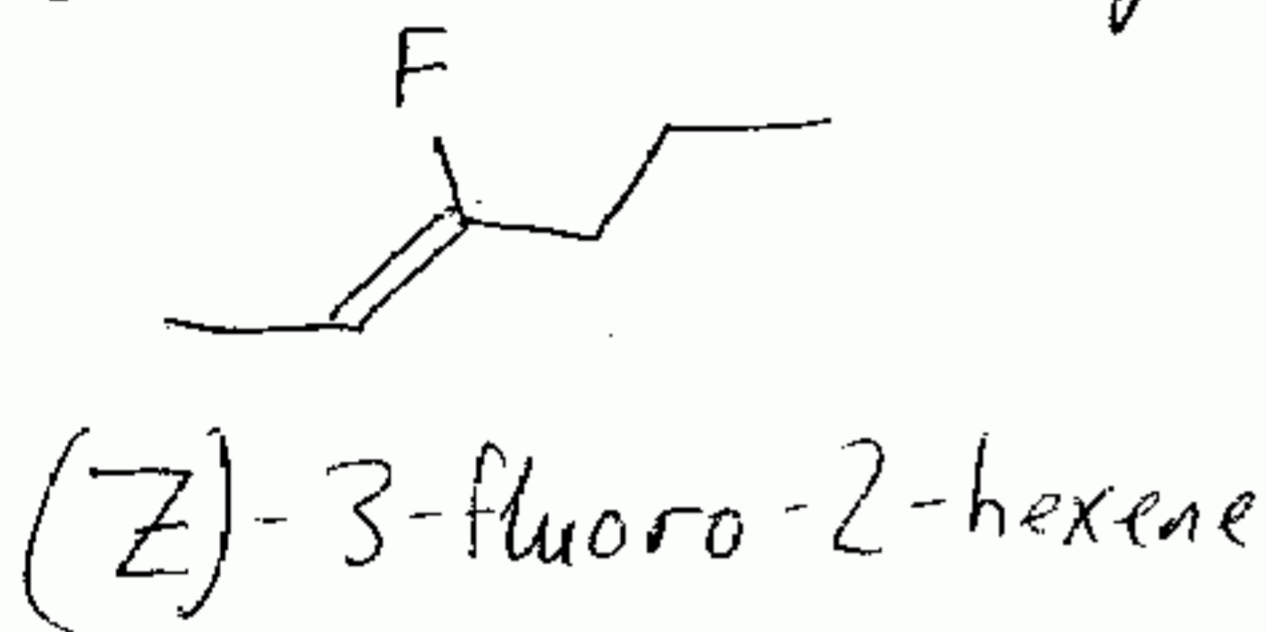
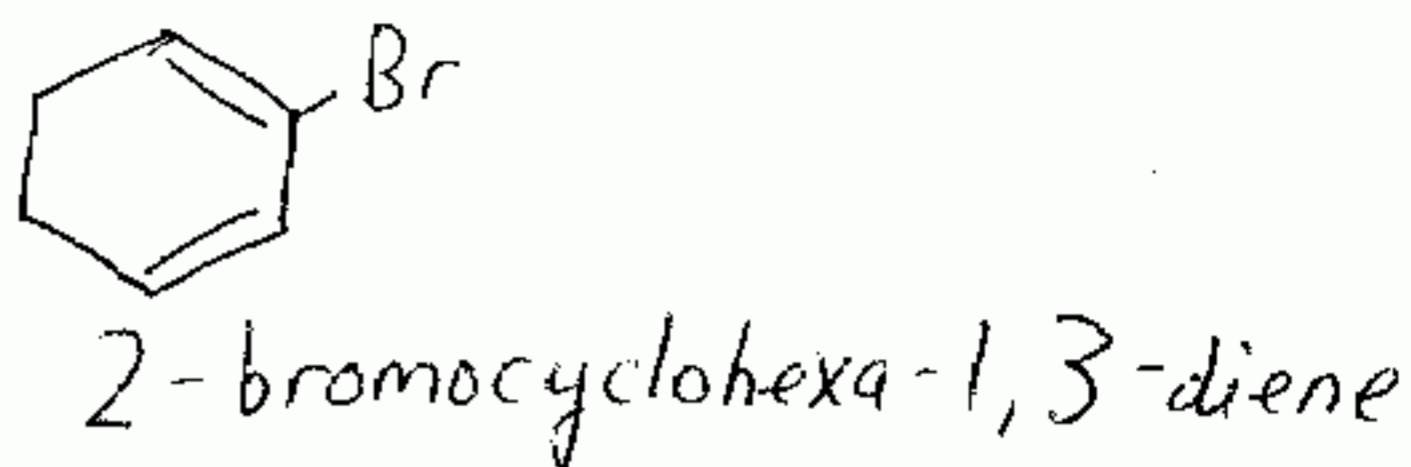
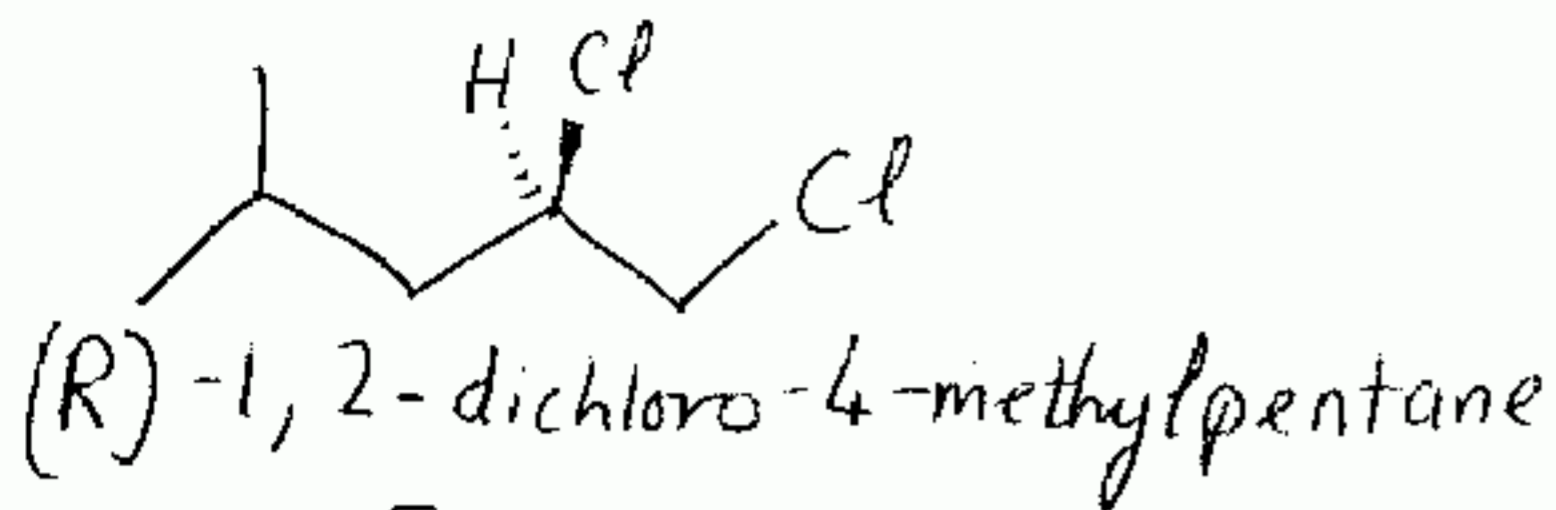
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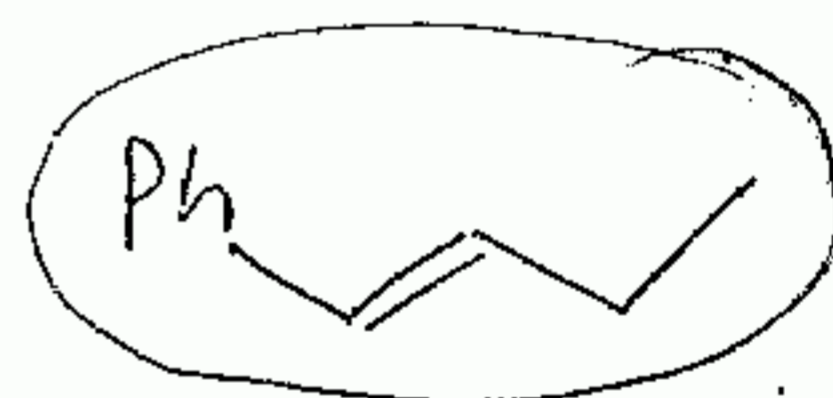
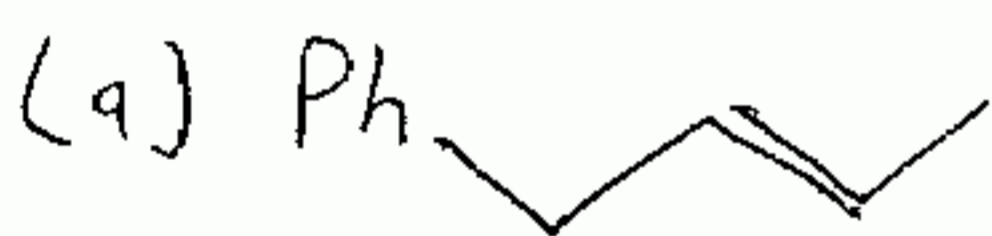
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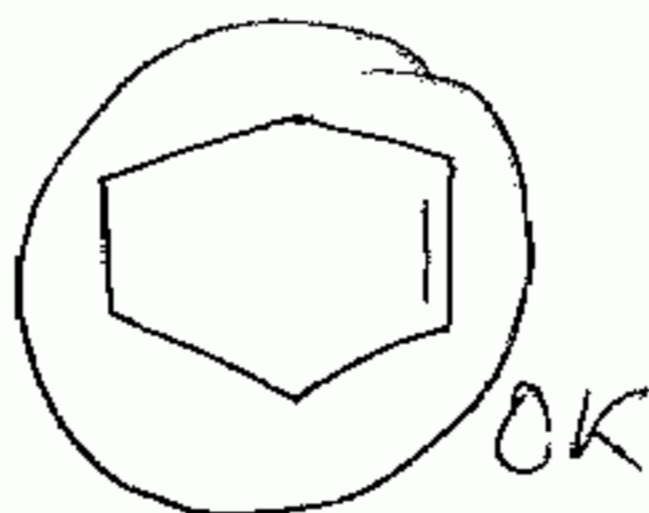
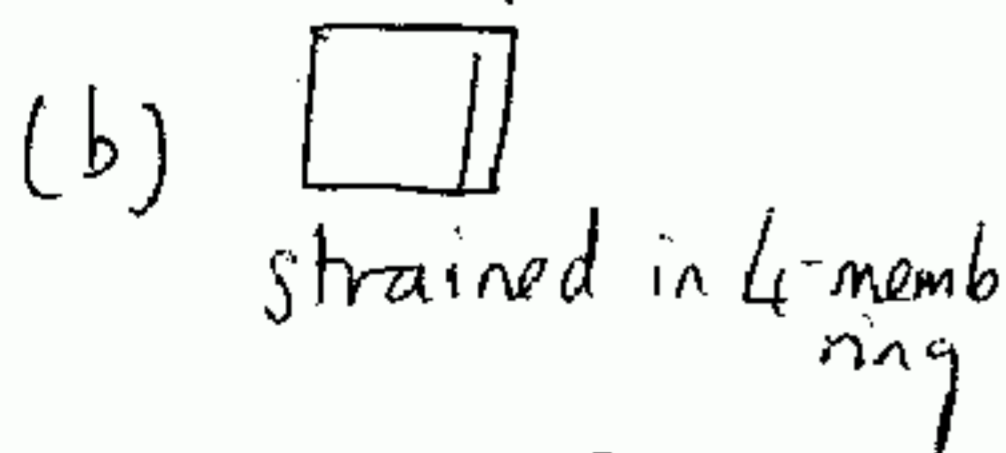
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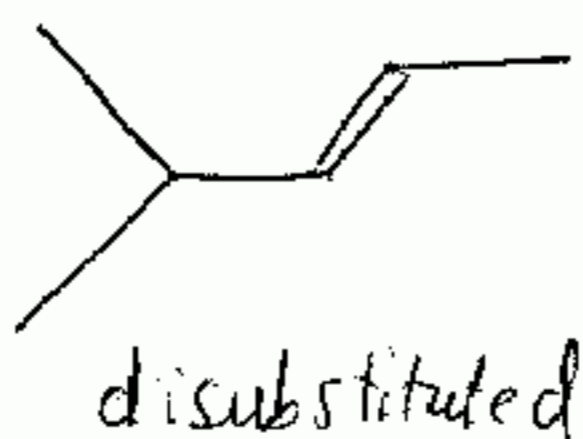
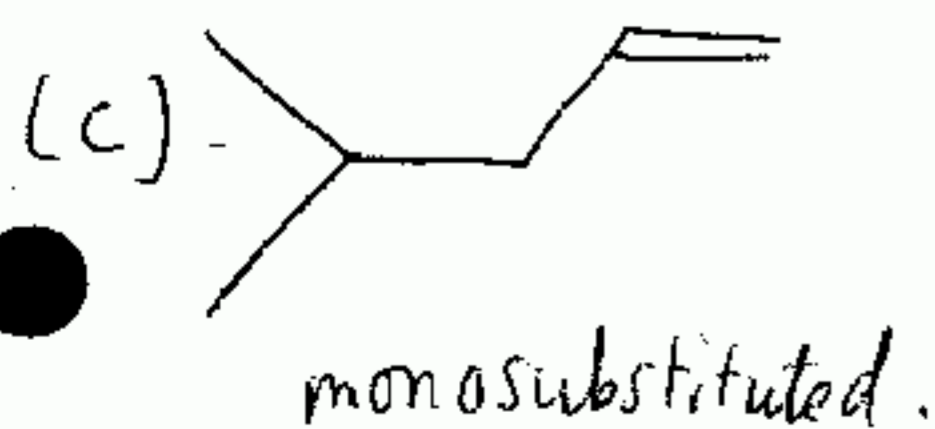
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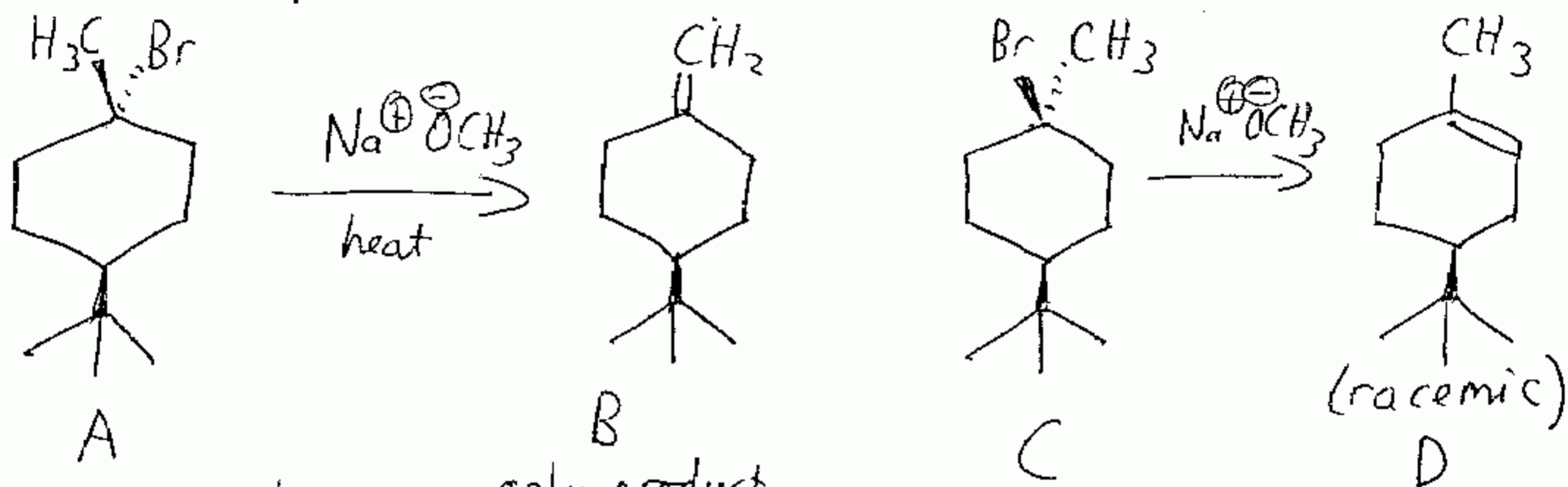
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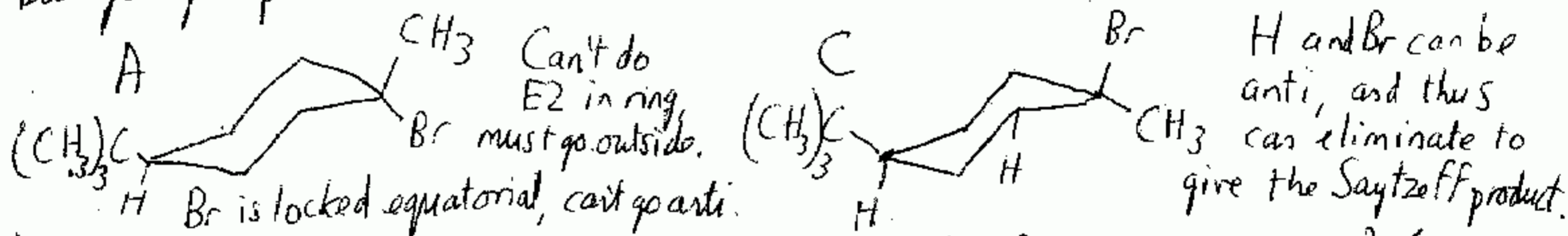
Trisubstituted (more stable than di- or monosubstit^a)

5. Explain the following observations: (hint: models will help in both)

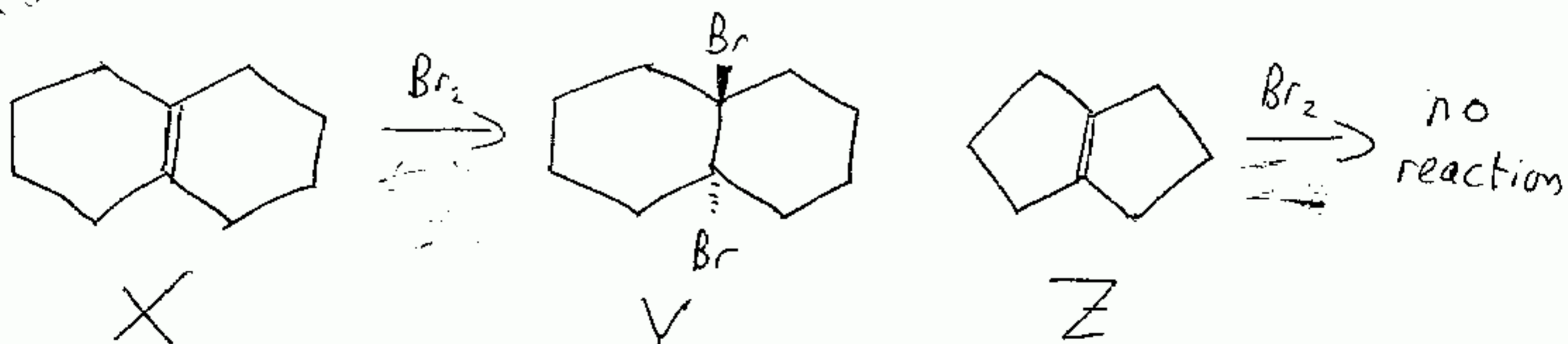
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