E1 REACTIONS
Problems document

Brief answers to these problems are available in the Answers document.
Fuller solutions to the problems are available in the Solutions document.
Step-by-step explanations for each problem are available in the “E1 reactions” videos.
You can find links to these resources at my website:
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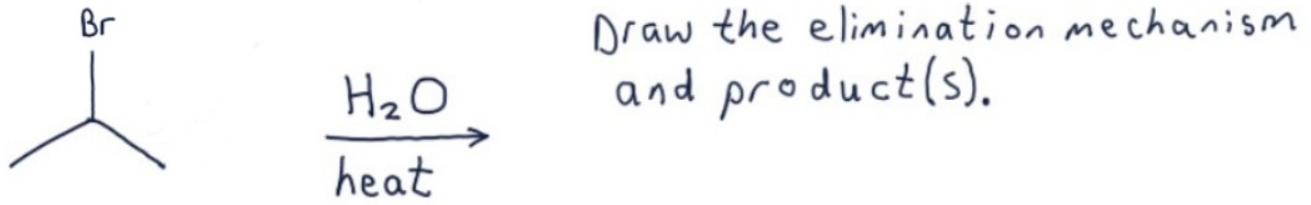
This video series is intended for students who find this material to be difficult, so in the videos I proceed slowly and repeat myself a lot. If you find the videos to move too slowly, you can simply try the problems in this Problems document, check your answers against the Answers document, and skip to the video explanations for any problems that you find confusing.

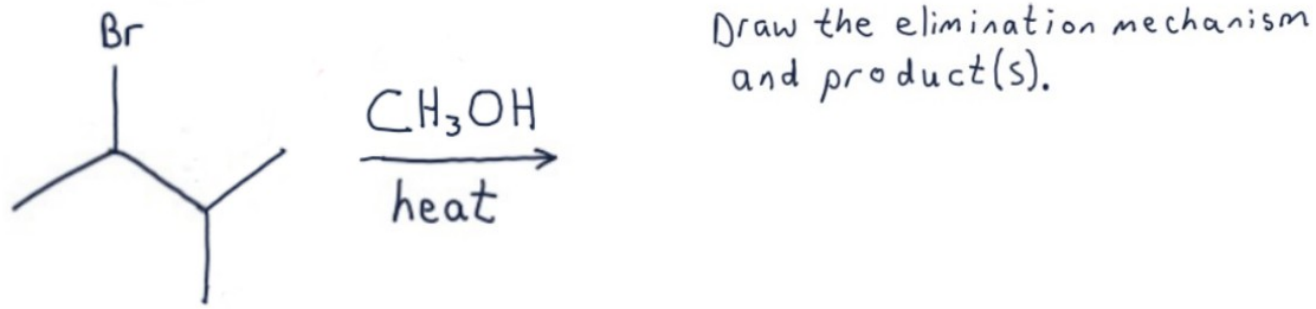
Problems begin on next page.

Video (1)



Define these terms: α carbon, β carbon, base, alkyl halide, carbocation intermediate, alkene

Video (2)

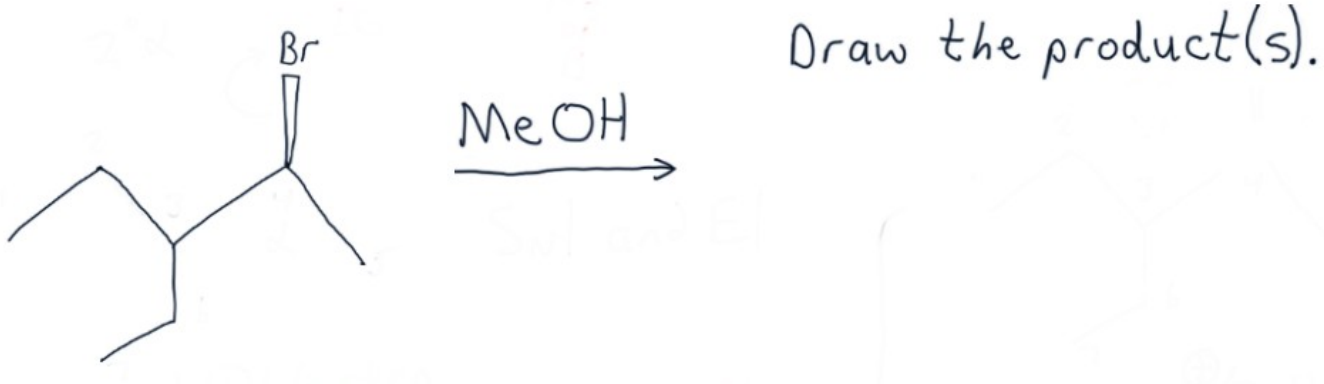


Label the functional groups in the starting material, intermediate, and product for the above mechanism.

Define these terms: alcohol; elimination mechanism

problems continue on next page

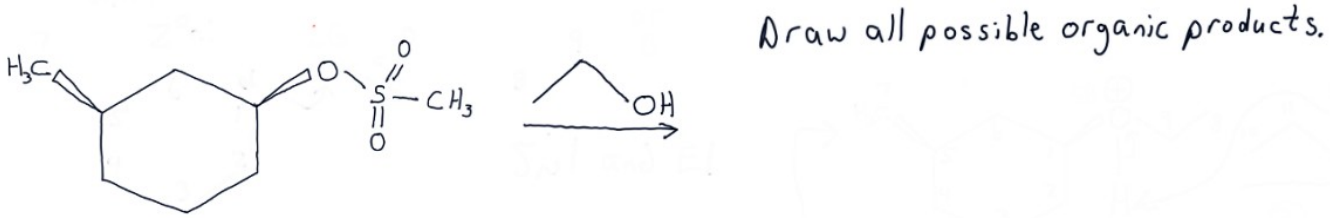
Video (3)



How is E1 similar to S_N1? How is E1 different from S_N1?
How is a base similar to a nucleophile? How is a base different from a nucleophile?

What is a substitution mechanism? What is an elimination mechanism?

Video (4)



Bonus problem for Video (4)
Examine the following electron-pushing arrows.
Are these reasonable or unreasonable electron-pushing arrows? *Why*?