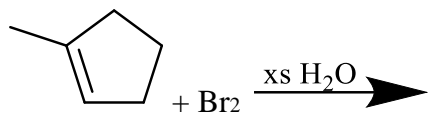
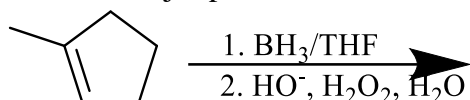


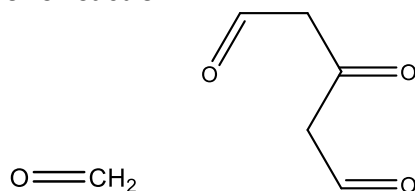
1. Draw the stereochemical isomers of the products of the following reactions and identify the major product



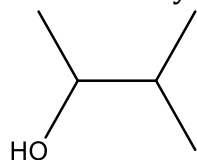
2. Draw the major product of the following reaction



3. What reagents and alkene starting materials would you use to create the following products with one reaction?



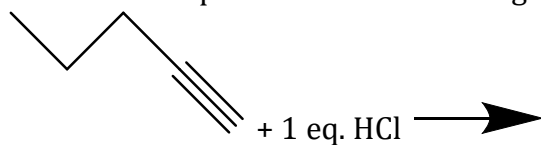
4. What reagents and starting materials would you use to synthesize the following product? Come up with two ways!



5. Rank the following in order of decreasing stability

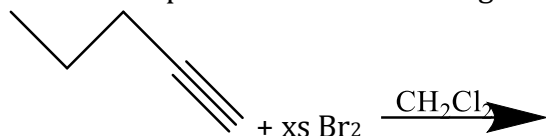


6. A. What is the product of the following reaction?

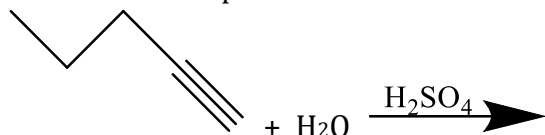


B. What would the product be if another equivalent of HCl is added to the product above?

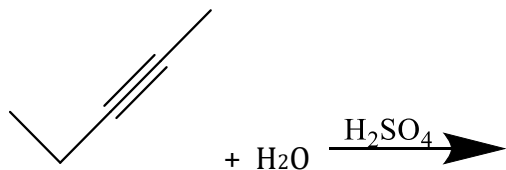
7. What is the product of the following reaction?



8. A. What are the products of the following reactions?

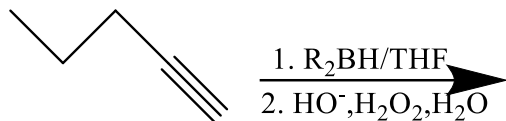


B.



C. Between 8A and 8B, which product will form faster? What can you add to a reaction to increase the reaction rate?

D.



E. How does the product of 8D compare to that of 8A? Why?

9. A. What is the product of the following reaction?



B. How would the product differ if a Lindlar catalyst is present with H₂ instead of Pd/C?

C. What is the conformation of the product in 9B? How could you change it?

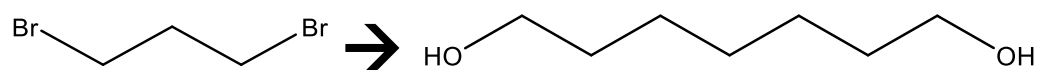
10. Rank the following in order of decreasing acidity



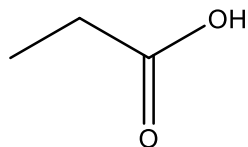
11. What reagents would you use to synthesize 2-hexyne from 1-pentyne?

12. Starting with ethyne, how would you synthesize 2-methyl-2-butanol?

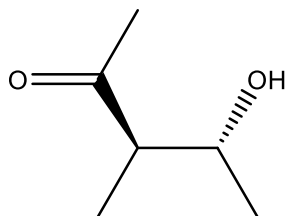
13. Complete the following synthesis:



14. Starting with ethyl bromide, how would you synthesize the following molecule?



15. Starting with ethyne, synthesize the following molecule using any reagents of up to 2 carbons (Hint! Use retro-synthesis)



Tip of the Week

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