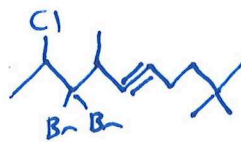
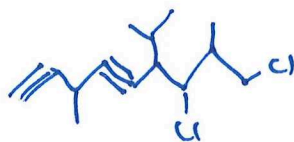
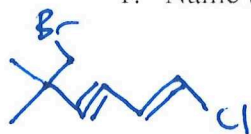


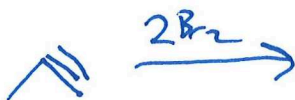
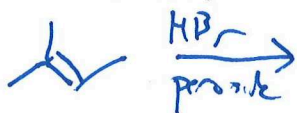
Tuesday, May 4<sup>th</sup>, 2021  
Exam #1

Name: \_\_\_\_\_

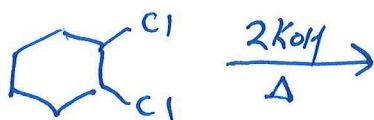
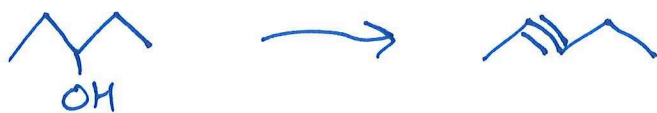
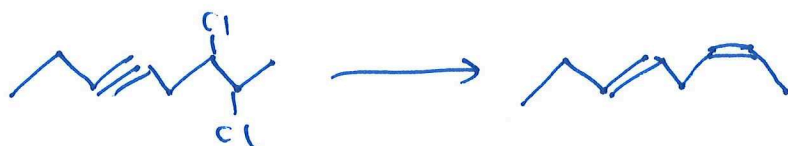
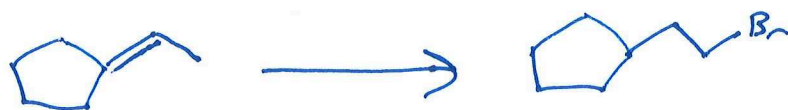
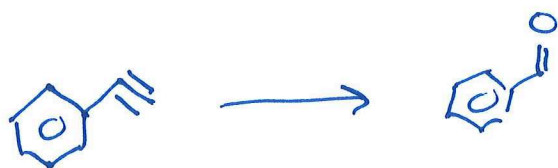
1. Name the following molecules:



2. Suppose an unknown molecule that contains alkenes and/or alkynes is treated with  $3\text{H}_2/\text{Pt}$ . The product of that reaction is 2,3,6-trimethyl heptane. Both  $\text{KMnO}_4$  and ozone/zinc dust produces the exact same products (carboxylic acids and ketones) but in neither case any carbon dioxide. What is the structure of the original unknown?
3. If pentane were treated with fluorine and UV light, what would be the expected products? Give approximate percentages of each.
4. Draw the product and mechanism of the following:



5. Complete the following reactions:



creates polymer about 2000 carbons long