

Chemistry 2, HW 22

Look at the slides 3-5 in the class presentation, look at organic functional group interconversions, find how haloalkane can be converted to alkenes (the same reaction will work for haloalkane to alkyne conversion), this will be helpful for questions 1 and 3. For question number 2, you have to remember reaction characteristic for benzene.

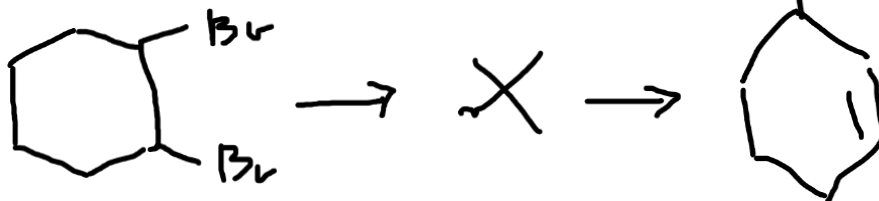
Also keep in mind, that though alkanes are not reactive, but they will react with halogens in the presence of ultraviolet light.



Questions:

Try to figure out the following conversions

1. $\text{C}_2\text{H}_4 \rightarrow \text{C}_2\text{H}_4\text{Br}_2 \rightarrow \text{C}_2\text{H}_2$
2. $\text{C}_6\text{H}_6 \rightarrow \text{C}_6\text{H}_5\text{Br} \rightarrow \text{C}_6\text{H}_5\text{ONa}$
- 3.



Where x – intermediate unknown compound

4. $\text{C}_2\text{H}_6 \rightarrow \text{X} \rightarrow \text{C}_2\text{H}_5\text{OH}$