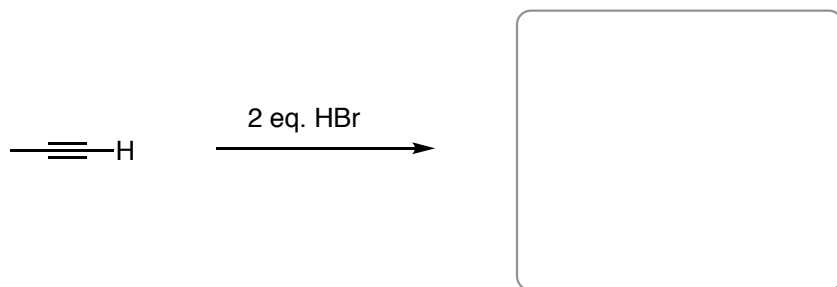


Addition of HX to Alkynes. HX = HI, HBr, and HCl.

Product results in Markovnikov orientation.

1. Predict the product of the net reaction below:



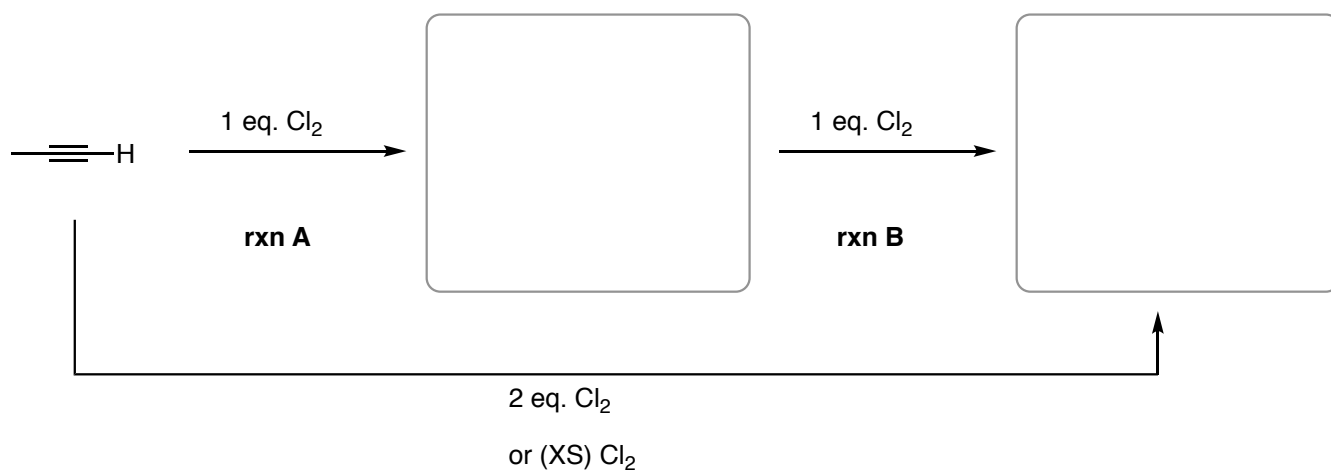
2. a) Now consider the following:



b) Would you expect the addition of the **second** equivalent of HBr to be faster or slower than the first one? Briefly explain. Note: Draw the mechanism of both reactions (A and B) to aid your answer.

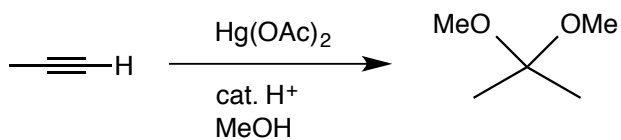
Addition of **X₂** to **Alkynes**. X₂ = **Cl₂** and **Br₂** only!

3. Predict the product of the net reaction below:



On your own (homework), draw the mechanism for both reactions and see if you generate carbocations stabilized by halogens.

Complete the mechanism for the reaction below.



Use the space provided and show the movement of arrows.

