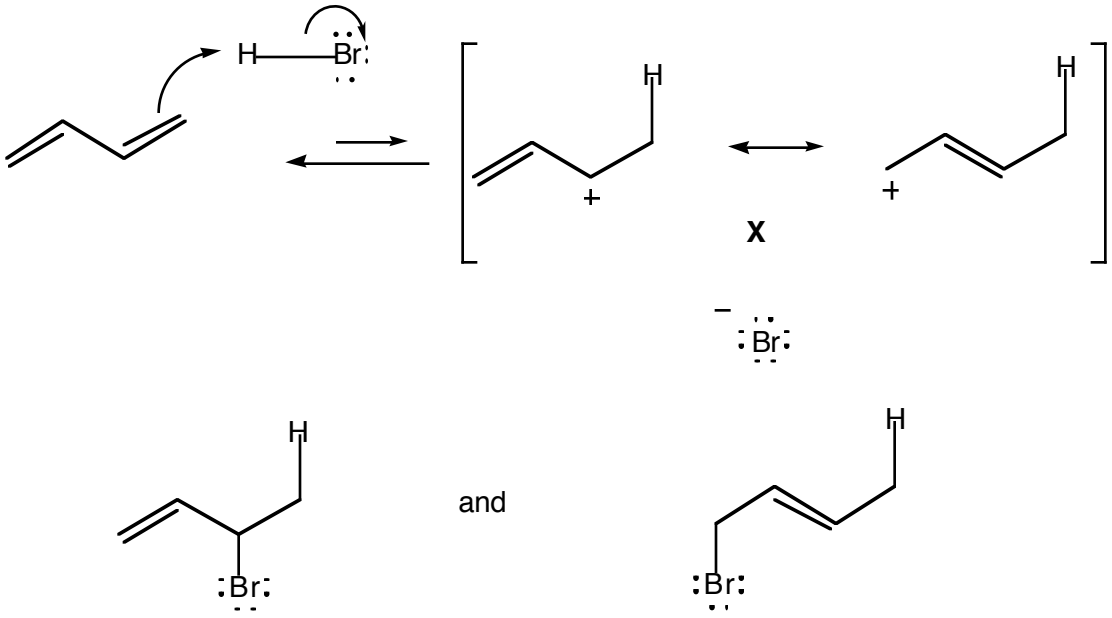
Problem 30, Chemistry 301X - 2006

Here is your answer to Problem 29. It uses resonance forms to show the origin of the two products. Two carbons share the positive charge. Bromide adds at each site of positive charge to give two products.



Please use an MO - not resonance - view of this reaction to come to the same conclusion. Start with the MOs of the ion **X**. Calibration point: at this point you should not have to derive them.

Next keep in mind that you are looking for stabilizing filled orbital - empty orbital interactions in the addition of bromide to the allyl cation **X**.

What is the filled orbital?

What is the empty orbital?

Why are there two and only two products?