Problem of the Day 02 Section 1.3 Question 1.20

In Question 1.20 (a), hydrobromic acid used in an addition reaction with the compound shown, and in Question 1.20 (c), molecular iodine is used with that compound. What if those reagents are swapped? Draw out the addition reaction production from using molecular iodine for part (a) and use hydrobromic acid for the addition in part (c). In one of these two cases, a new issue comes up that did not come up before. What is it and why does it happen?

(a) the organic starting material combines with 1 equivalent of hydrobromic acid in an addition reaction



both molecules are symmetrical in structure, so which atom forms a new bond with each end of the double bond is not relevant.

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(c) the organic starting material combines with 1 equivalent of molecular iodine in an addition reaction



of the "H" and the Br"