

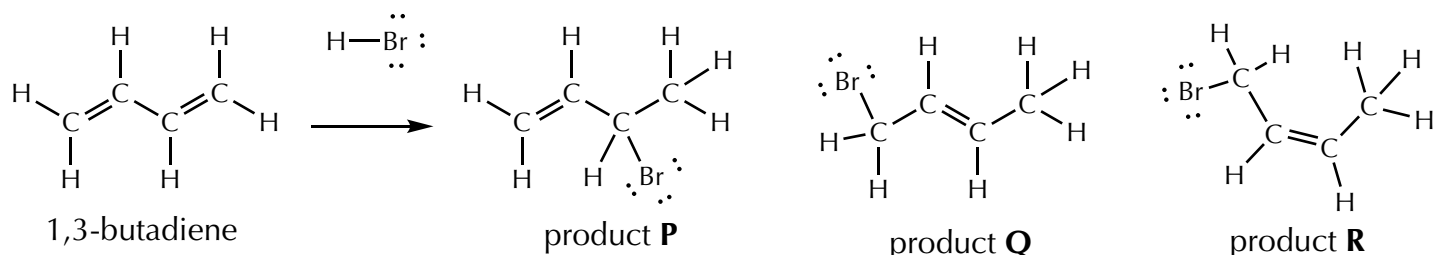
Problem of the Day 15

Section 4.3

Question 4.13

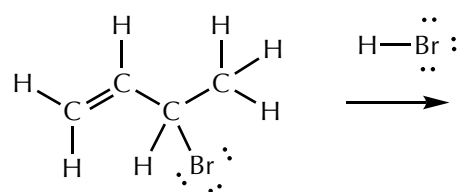
Products **P**, **Q**, and **R** result from adding HBr to 1,3-butadiene. Each of these products still contains a double bond and could add another equivalent of HBr. Which, if any, of the second addition reactions is expected to be regioselective? Explain.

ORIGINAL

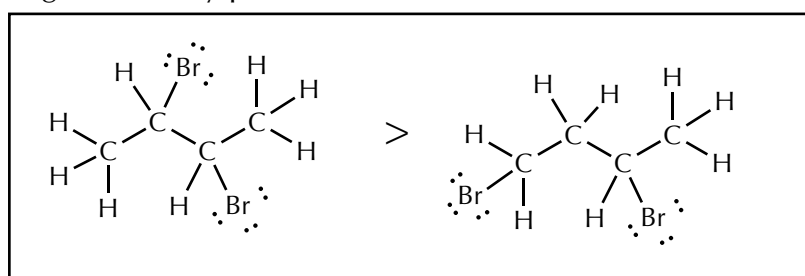


POD

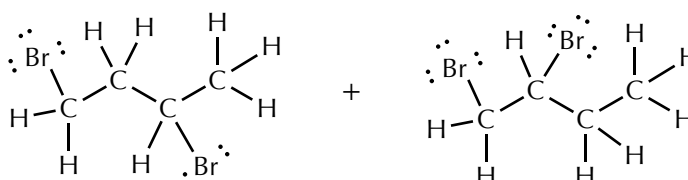
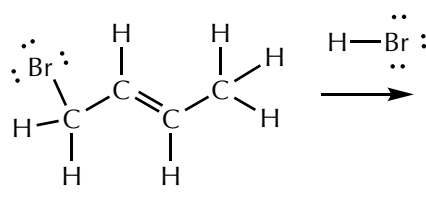
product **P**



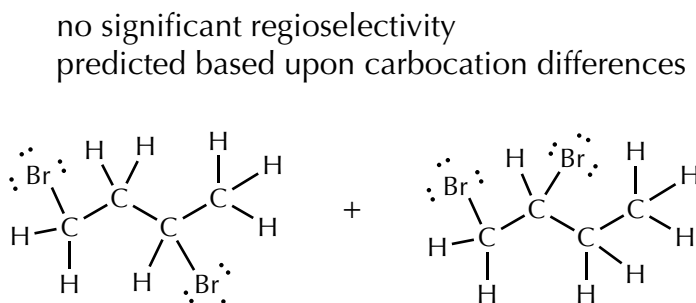
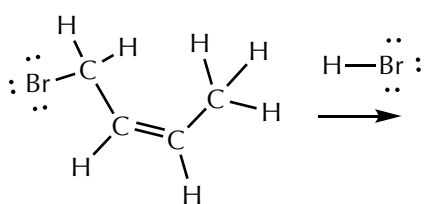
regioselectivity predicted in this direction



product **Q**



product **R**



Q and **R** result in the same mixture of compounds, relative proportions are not predictable

no significant regioselectivity predicted based upon carbocation differences