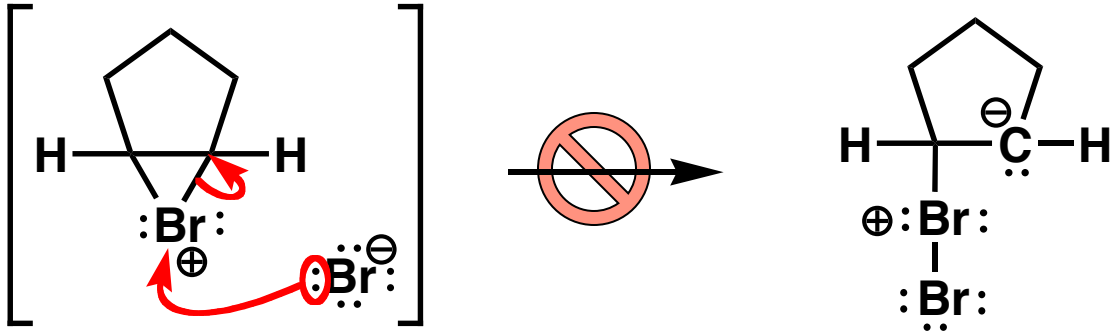
Discussion Problem



It was previously stated that [S_N2] at Br^+ is not reasonable compared to attack at carbon. Use frontier orbital theory to explain why [S_N2] attack at Br^+ is less likely than carbon (i.e., answer the following question).

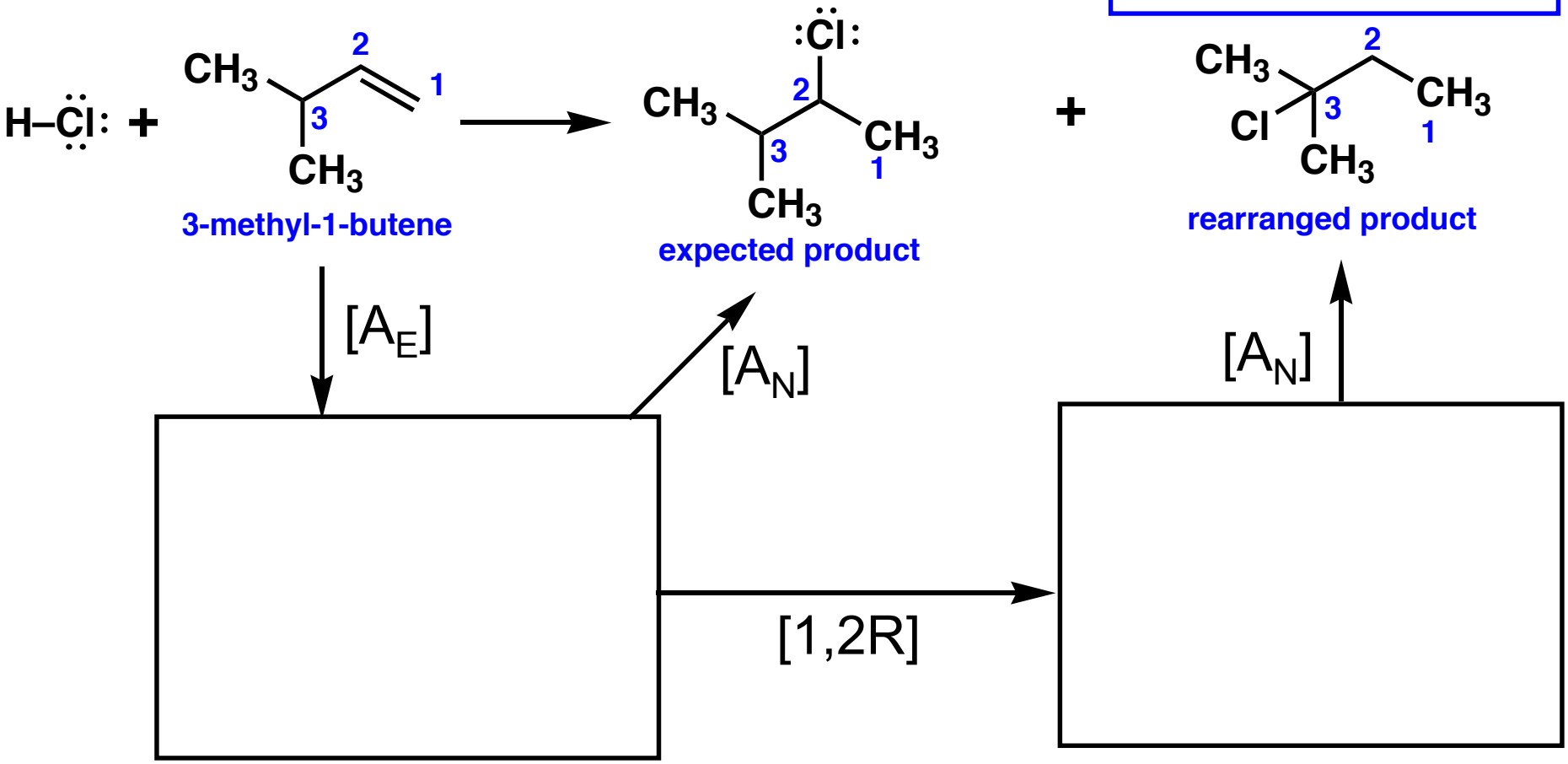
On which atom of C–Br^+ is σ^* largest? Draw an MO diagram to rationalize the relative contributions of C and Br+ to the σ^* of C–Br^+.

Discussion Problem

Acid-Catalyzed Addition of HCl with Rearrangement

Bonds Made	Bonds Broken
C^1–H	C^1=C^2
C^2–Cl	H–Cl

Bonds Made	Bonds Broken
C^1–H	C^1=C^2
C^2–H	H–Cl
C^3–Cl	C^3-H



Discussion Problem:

Addition of Halogens to Alkenes in a Nucleophilic Solvent

Bonds Made	Bonds Broken
C^1–Cl	C^1=C^2
C^2–O	Cl–Cl
H–Cl	H–O