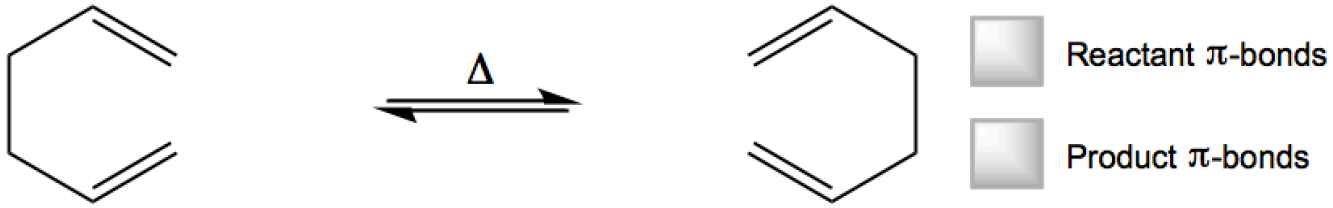
CONCEPT: INTRODUCTION TO SIGMATROPIC SHIFTS

● Intramolecular pericyclic reactions in which _____ ***π-bonds*** are destroyed after a cyclic mechanism

□ Involve the _____ of 1 σ–bond and the _____ of 1 σ–bond

□ Take the form of numerous rearrangements. Products are typically *constitutional isomers* of the reactant

□ Common examples are the *Cope* and *Claisen Rearrangements*



Naming Convention:

● Always described as [x,y]-sigmatropic shifts.

□ σ–bond broken = Atom 1

□ σ–bond created = Atoms [x,y]

EXAMPLE: Provide the correct names and mechanisms for the following sigmatropic shifts