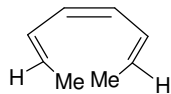
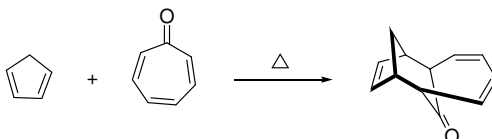


## Tutorial-3

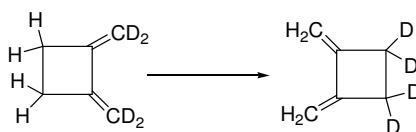
**Q 1.** Draw the products you would expect from the conrotatory and the disrotatory cyclizations of the following octatriene. Which of the two paths would you expect the thermal reaction to follow?



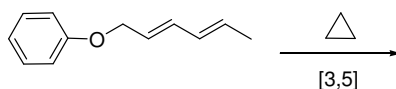
**Q 2.** Cyclopentadiene reacts with cycloheptatrienone to give the product shown below. What kind of reaction is involved, and explain the observed result. Is the reaction suprafacial or antarafacial?



**Q 3.** The following thermal rearrangement involves two pericyclic reactions in sequence. Identify them and proposed a mechanism to account for the observed result.



**Q 4.** Predict the product of the following pericyclic reaction. Is this [3,5] shift a suprafacial or an antarafacial process?



**Q 5.** The following reaction takesplace in two steps, one of which is a cycloaddition and the other is reverse cycloaddition. Identify the two pericyclic reactions, and show how they occur.

