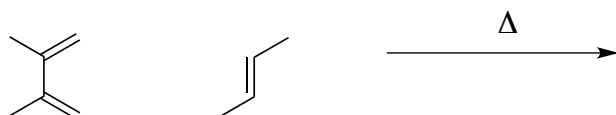
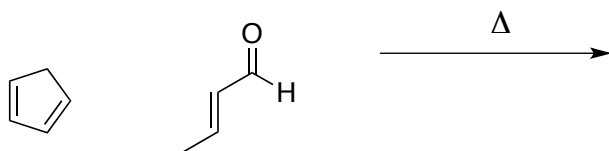
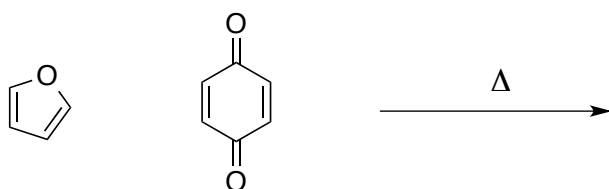
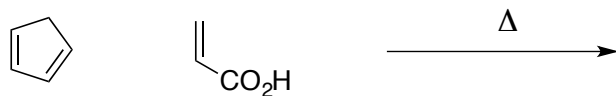
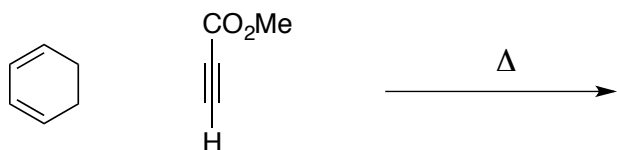
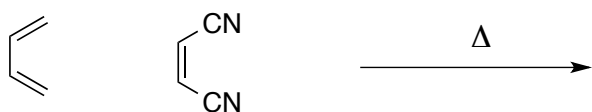


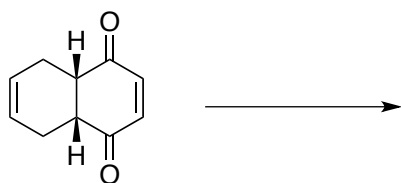
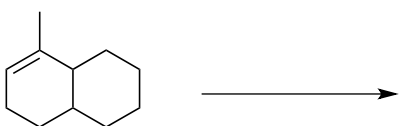
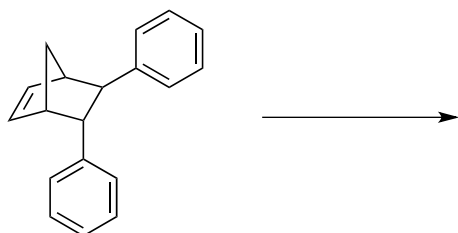
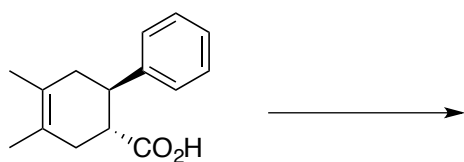
Diels-Alder Extra problems

Clearly draw the major products of the reactions below. Make sure to include stereochemistry where appropriate. You do not need to draw a mechanism.

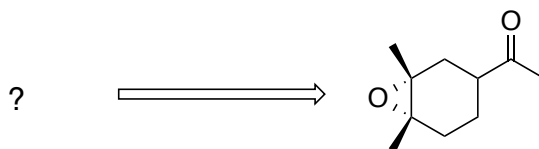
- *Diels-Alder (In each case indicate if the product solution would rotate plane polarized light)*



- *Retro Diels-Alder*



Provide a synthesis for the molecule below. The starting material(s) can not contain more than 6 carbons.



Provide a complete mechanism (with curved arrows) for the transformation below.

