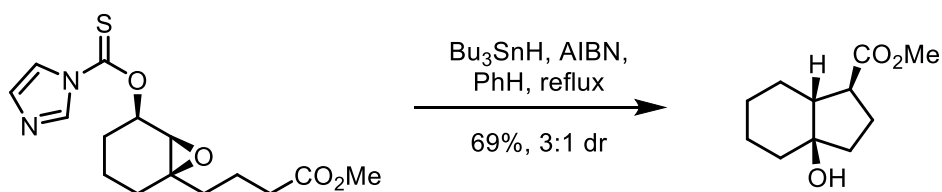
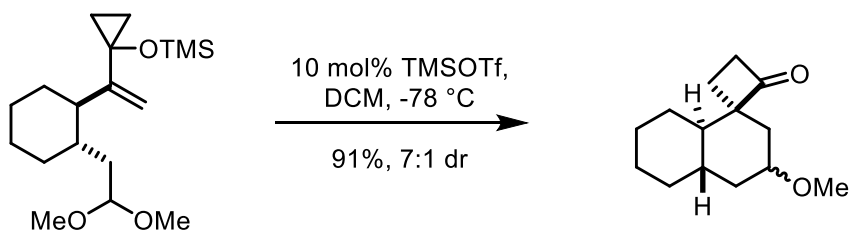


Please provide mechanisms and rationalise any stereochemistry you might come across in the following problems.

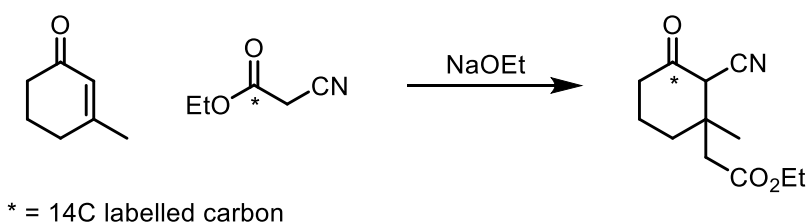
1.



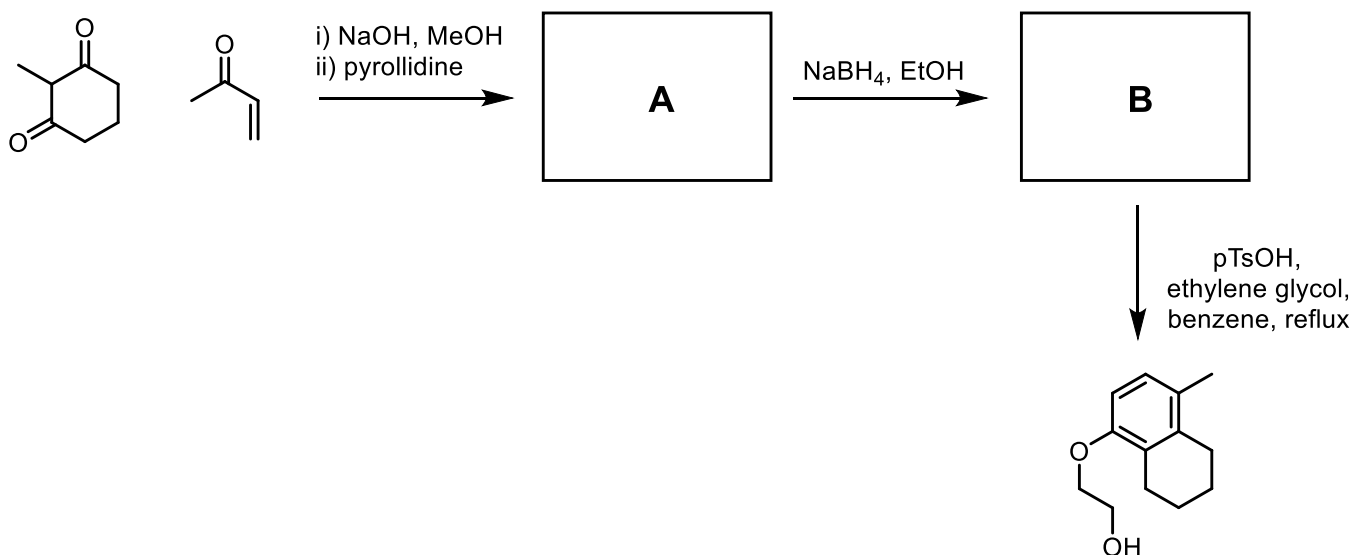
2.



3. Please provide a mechanism which rationalises the  $^{14}\text{C}$  labelling.



4. Please provide structures for **A** and **B** and mechanisms for the below transformations.



5. Please provide a synthesis of **C**.

