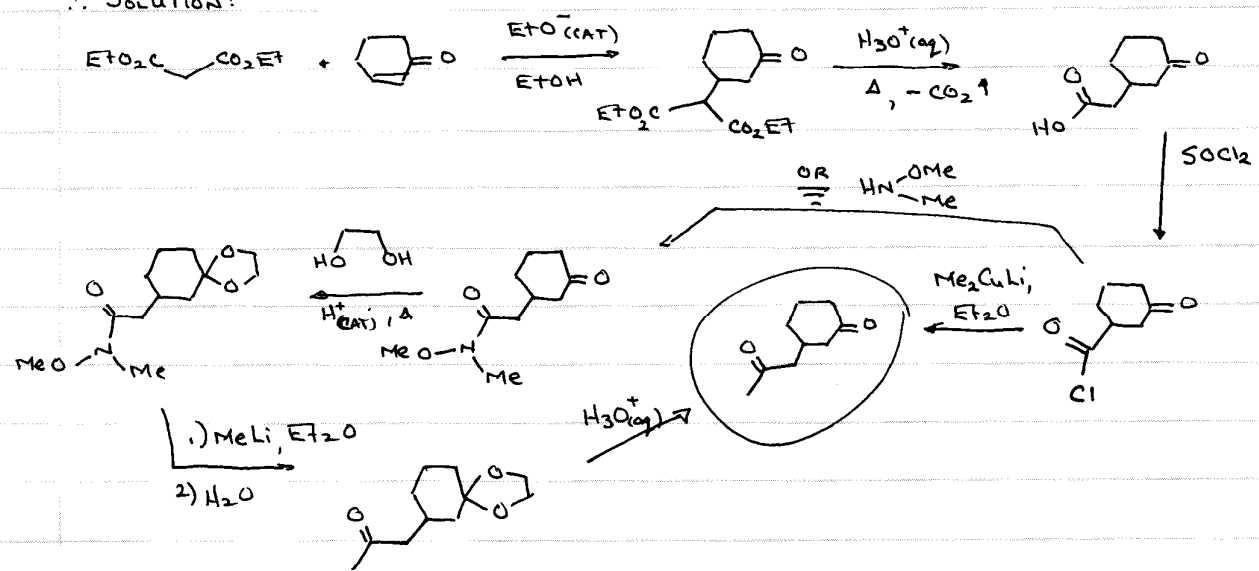


3 a) ANALYSIS: 1,5-DICARBONYL: ALMOST CERTAINLY A MICHAEL RXN.

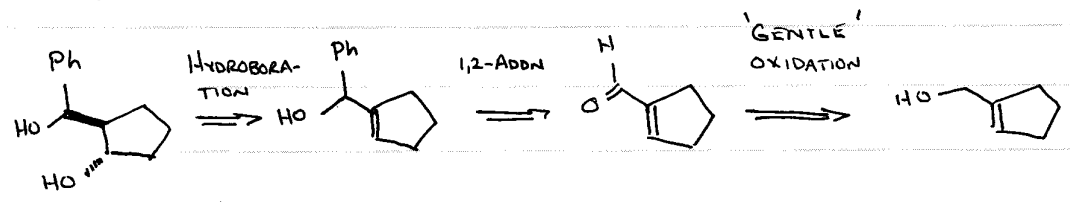
BUT, DIESTER BECOMING METHYL KETONE IS PROBLEM ..... VIA ACID CHLORIDE

OR WEINREB AMIDE

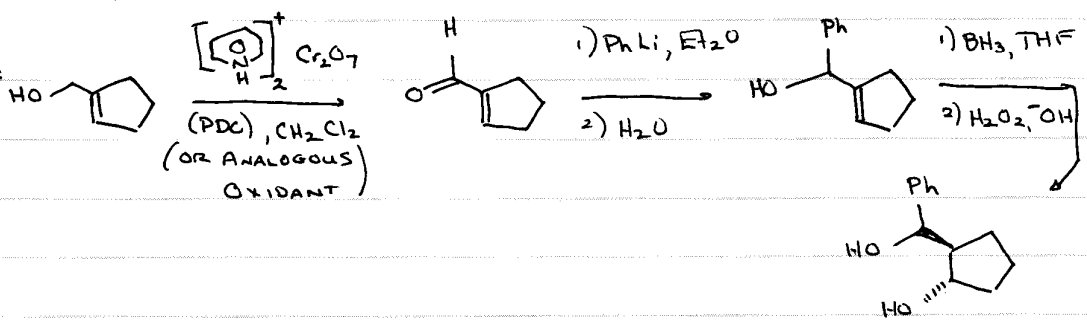
SOLUTION:



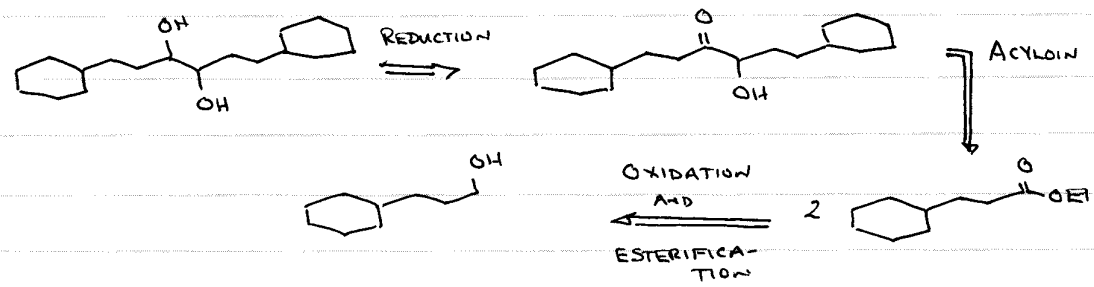
b) ANALYSIS:



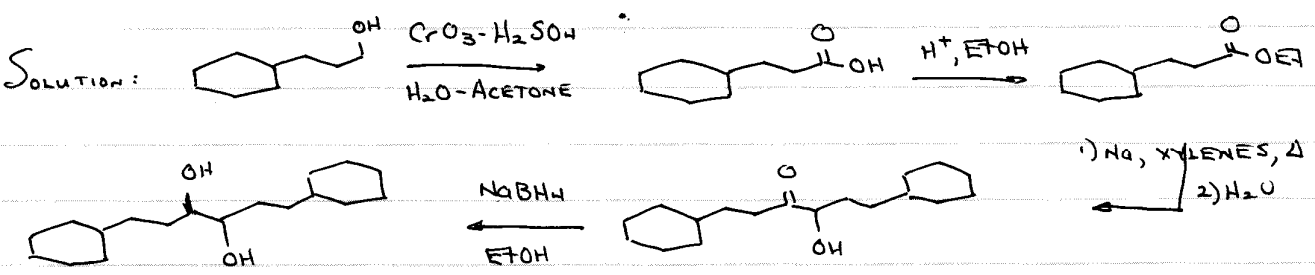
SOLUTION:

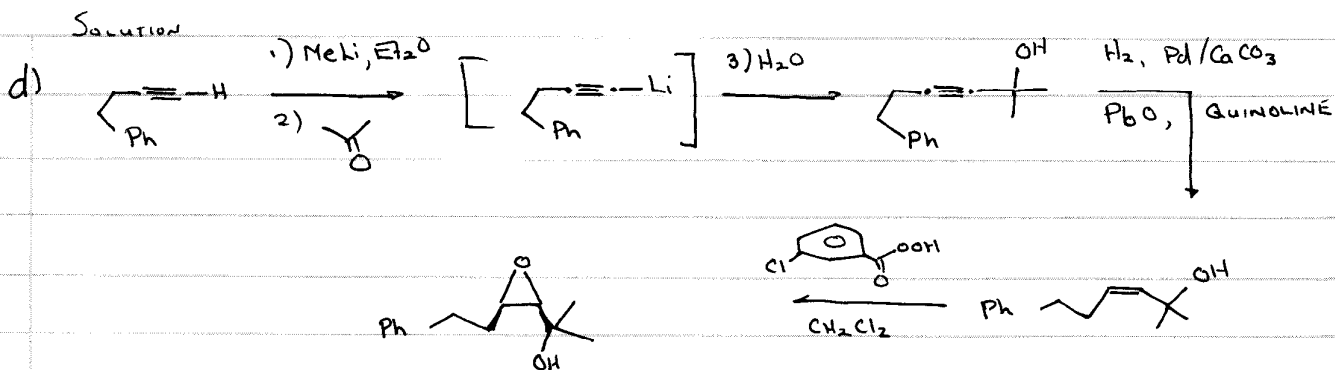


c) ANALYSIS:



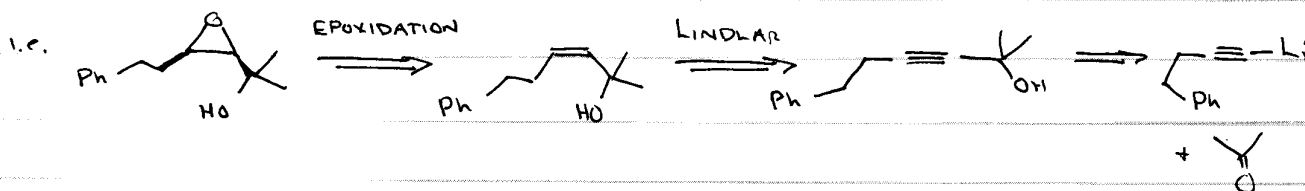
SOLUTION:





OOPS, FORGOT

ANALYSIS: THE KEY HERE IS THAT THERE IS AN EPOXIDE OBVIOUSLY (WELL, I HOPE) DERIVED FROM A CIS ALKENE, WHICH MUST HAVE COME FROM THE ALKYNE. THEREFORE, A LINDLAR REDUCTION IS CRITICAL, BUT ONLY AFTER YOU USE THE ACIDITY OF THE ALKYNYL-H TO INCORPORATE THE OTHER CARBONS.



Bonus: BASED ON SOME OF THE NOTES, BUT WHICH WAS BYPASSED ON THE BOARD, CATIONS  $\beta$ - TO SILICON ARE QUITE EASY TO GET TO ( $\oplus \text{SiR}_3$ ). SO TO GET TO THEM HERE:

