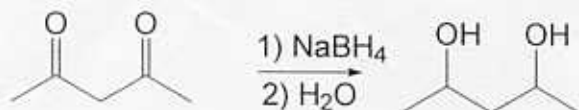
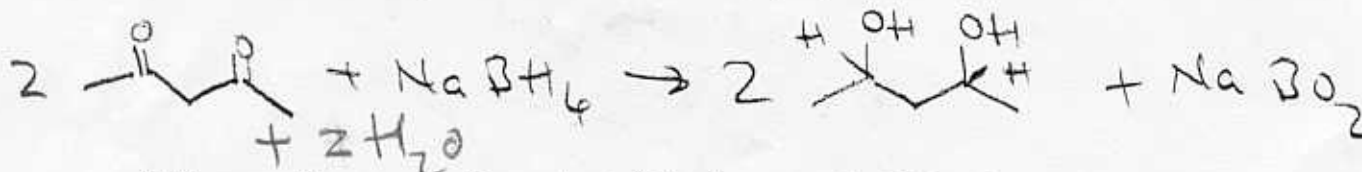


Last time, we reduced a diketone to the corresponding diol using sodium borohydride. Shown below is another diketone that can be reduced with sodium borohydride in exactly the same fashion:



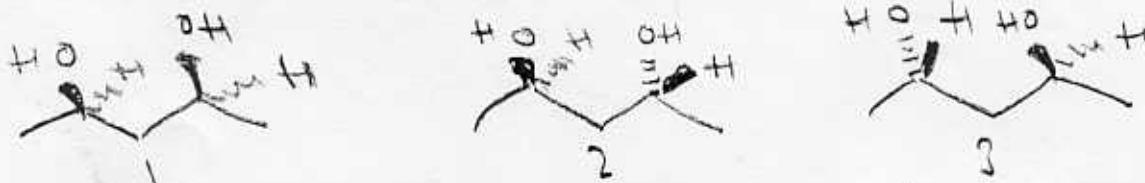
1. Show a balanced equation for this reaction! (5 pts)



2. How would you name the product of the above reaction? (2 pts)

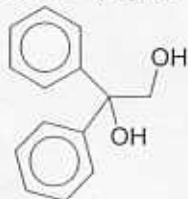
2,4 - pentanediol

3. Show all possible stereoisomers for the product shown above and state their relationships! (enantiomers, diastereomers,...) (4 pts)



1-2, 1-3 ... diastereomers (1 is meso form)
2-3 ... enantiomers

4. Shown below is an isomer of the compound we prepared last time. Propose a name for it! (3 pts)



1,1 - diphenylethane-1,2-diol

b) How many chiral centers (asymmetric carbons) does this compound possess? (1 pts)

0