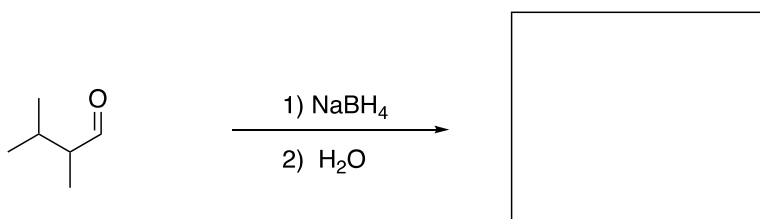
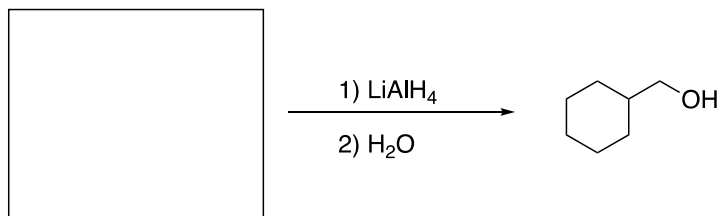
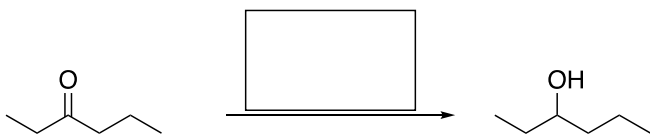
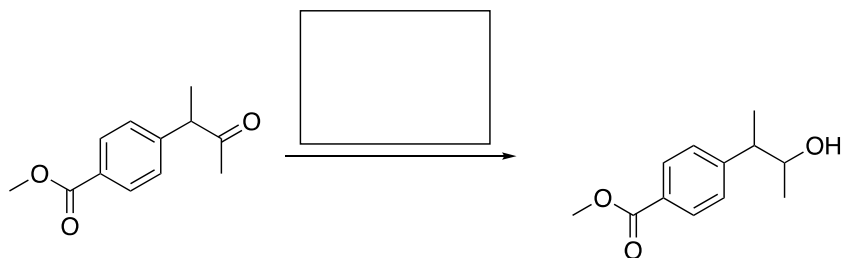
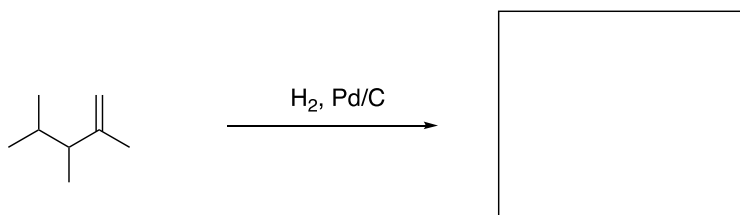


14 Reduction

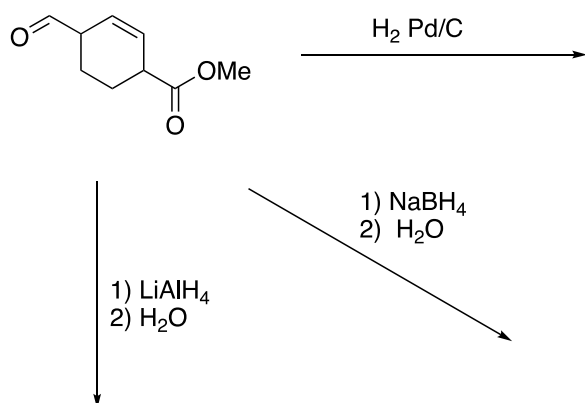
14.1 Complete the following RRP problems:



14.2 Complete the following RRP problems:



14.3 Predict the products of the following reactions from the same starting material:



15 Acetals & Hemiacetals

15.1 A challenge in carbohydrate chemistry is selectively functionalizing hydroxyl groups, there many and have similar reactivity and reactions can result in complex mixtures with the wrong regiochemistry. One common strategy is to protect the 6-OH and 4-OH by forming a ketal with acetone in acidic conditions. With two of the OH groups protected as a ketal, chemistry can be done on the other positions and the number of possible regioisomers is reduced. Draw the mechanism for the formation of a ketal using acetone, and the 4-OH and 6-OH of glucose.

