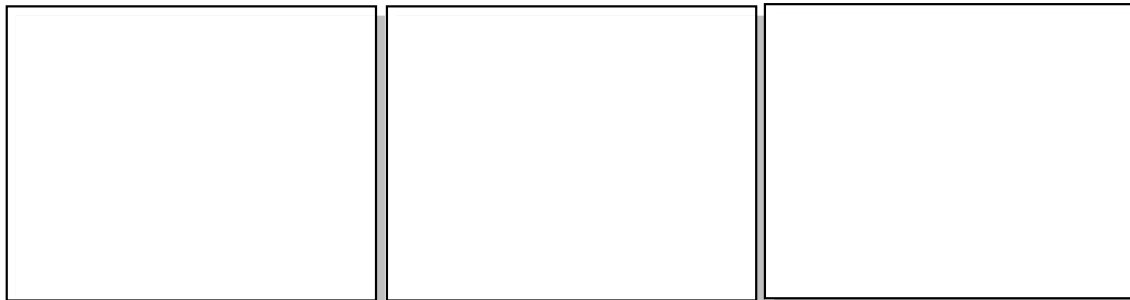


1. (6 Points) Give the correct structure for each of the following compounds.

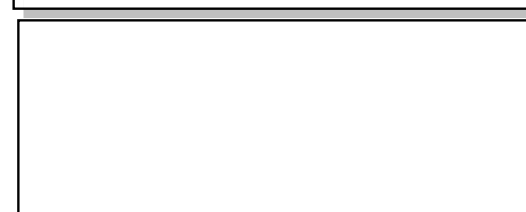
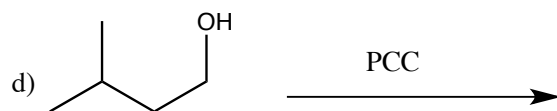
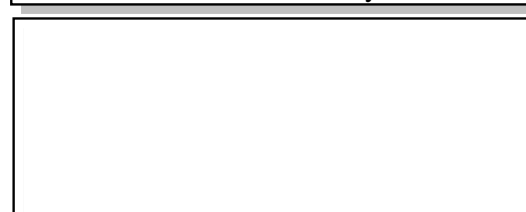
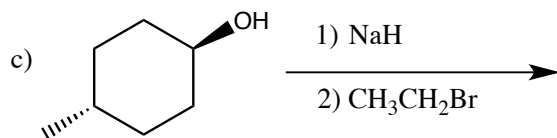
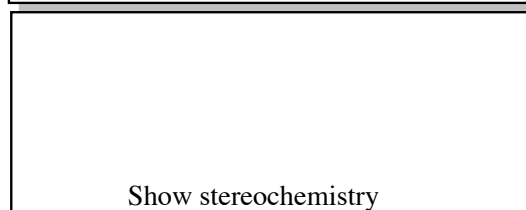
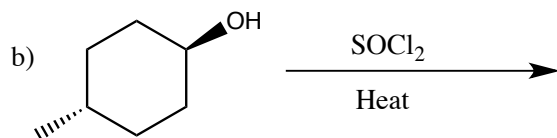
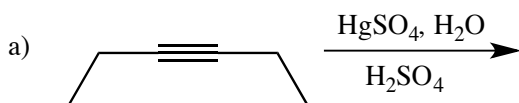
a) Diisopropyl ether

b) 3-Oxohexanal

c) (R)-3-Ethylcyclohexanone

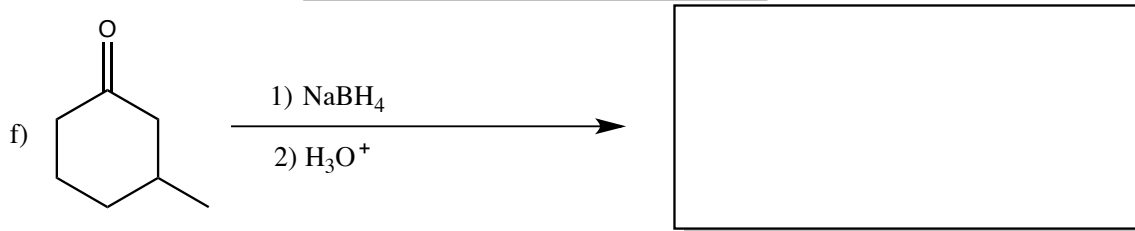
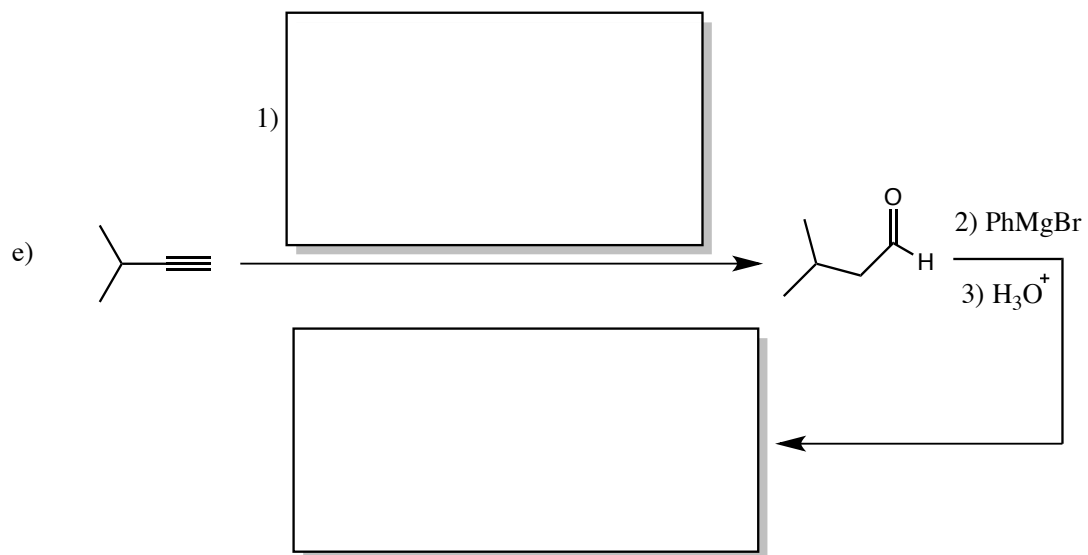


2. (14 Points, 2 Pts. Each) Complete the following chemical transformations by filling the boxes appropriately with reactant, reagents, or products.

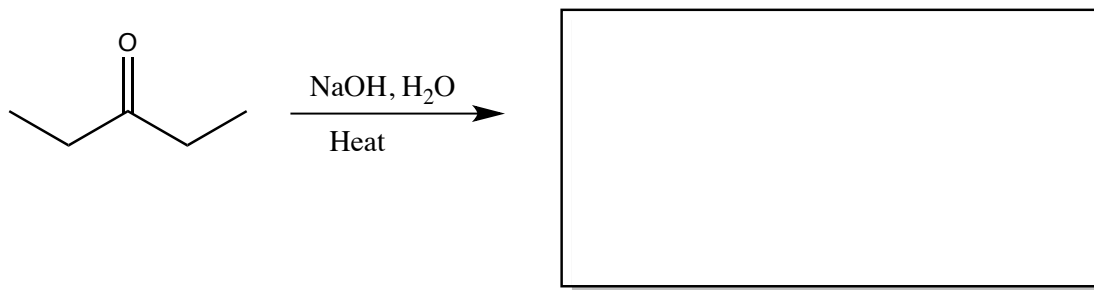


PCC = Pyridinium chlorochromate

2 Products



3. (5 Points) Provide a stepwise mechanism for the following Aldol condensation reaction.



Mechanism

Aldol Reaction Product (2 Pts)