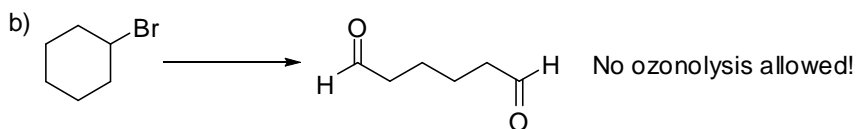
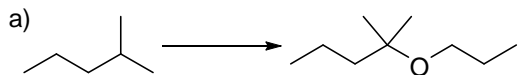


1) Provide synthetic routes for the following transformations:



2) Show the complete mechanism and products to the following reactions:

