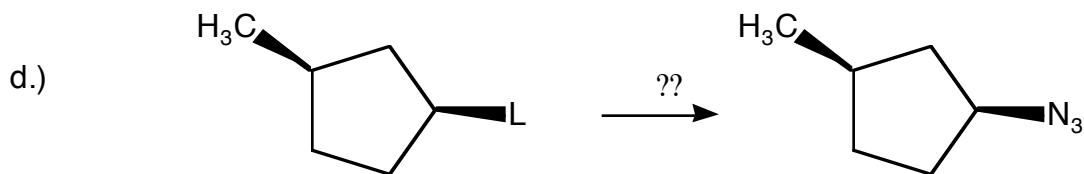
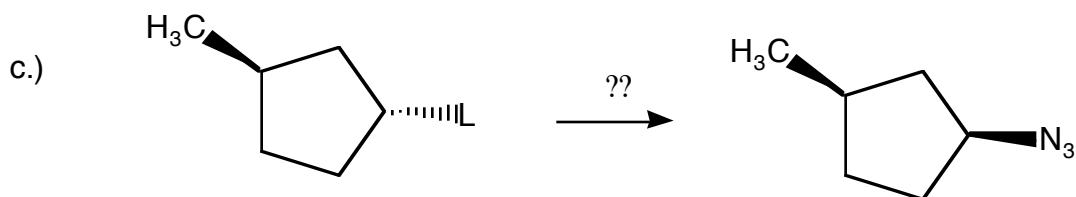
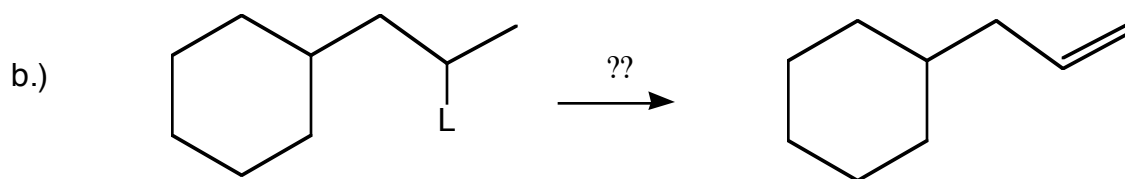
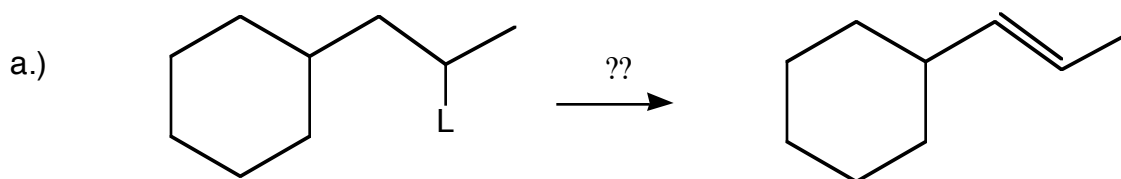


Problem 66, Chemistry 301X - 2006

1.) Use either substitution or elimination chemistry to provide an **effective** synthesis of each of the following molecules from the indicated starting material. (**Caution:** Control Stereochemistry in c) and d)

2.) For each synthesis, **BRIEFLY** explain your synthetic method.



Note: retention *only*.