[I] In each instance provide a structurally meaningful (that is, conformationally accurate) drawing of the starting material. [II] In some, but not all cases there exists the requisite antiperiplanar relationship between the C-L and C-C bonds. Highlight the bonds when such a relationship exists and clearly specify when it does not. [III] Some systems will fragment, others won’t. Specify which is which. [IV] Illustrate the product of fragmentation paying particular attention to stereochemistry. [V] Why can’t the starting material in case “b” undergo a double (i.e., both rings flip) chair-chair flip?

1. **[a]**
   - *Reactions:* KOBu-t / t-BuOH

2. **[b]**
   - *Reactions:* NaCH$_2$SOCH$_3$, CH$_3$SOCH$_3$

3. **[c]**
   - *Reactions:* Et$_3$N, EtOH/H$_2$O

4. **[d]**
   - *Reactions:* ‘base’

5. **[e]**
   - *Reactions:* ‘base’