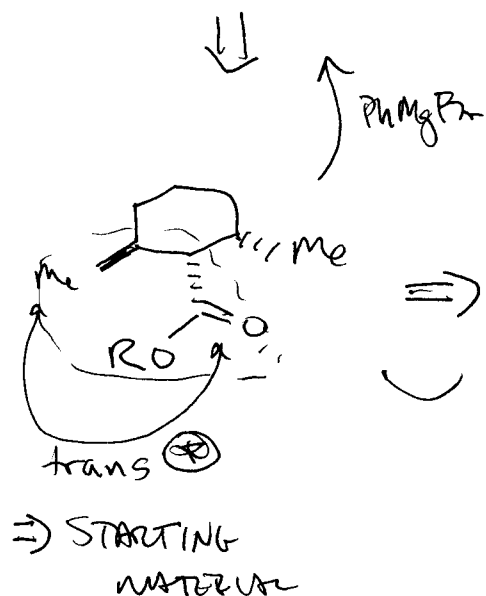
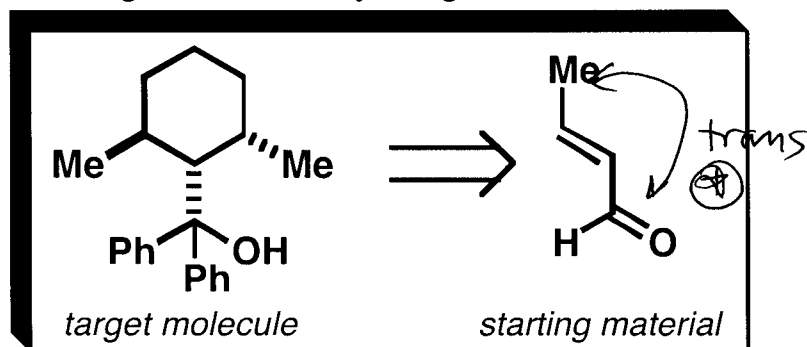


5. (20 points) In the space provided, propose an efficient synthetic route to the target molecule shown in the box from the starting material shown next to it. Assume that your "stockroom" of available reagents includes **any inorganic compounds, benzene, triphenylphosphine**, and **any organic compound containing 3 or fewer carbon atoms**. Your synthesis should provide a way to control the **relative stereochemistry** of the target molecule (but not the **absolute stereochemistry**). Write your synthesis in the **forward direction**, showing all necessary reagents and relevant reaction conditions for each step.



- ORTHO-PARA? OK ✓
- ENDO RULE? OK ✓
- STEREOSPECIFIC wrt DIENOPHILE? OK ✓
- STEREOSPECIFIC wrt DIENE? N/A

