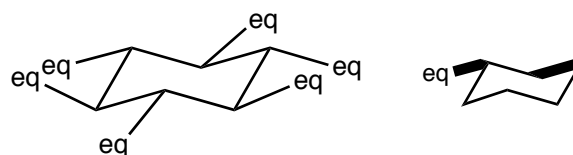
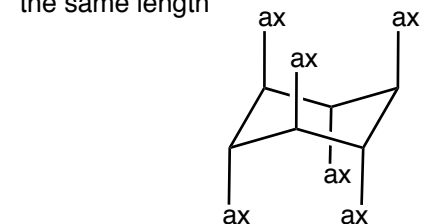
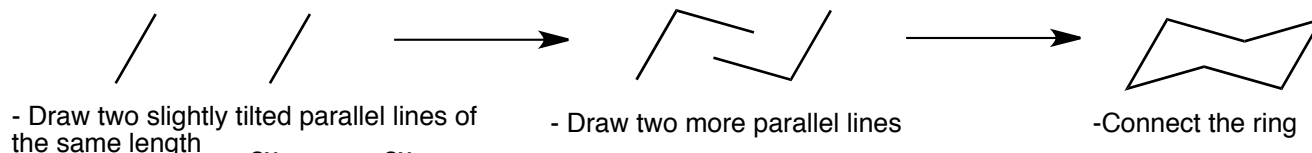


Cyclohexane Conformations

How to draw chair conformations:



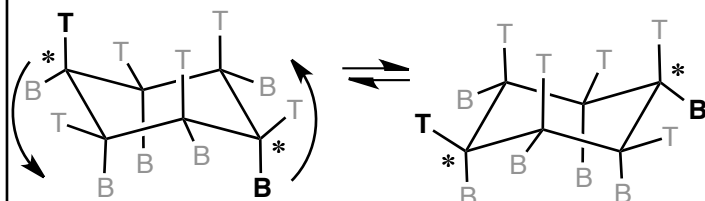
- Axial bonds are extended straight up when vertex points up
- Axial bonds are extended straight down when vertex points down

- Equatorial bonds are drawn parallel to C-C bond

Ring Flips

- Each carbon has one axial and one equatorial bond, one on the top face and one on the bottom face

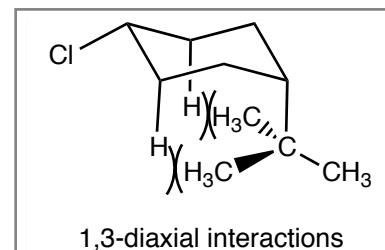
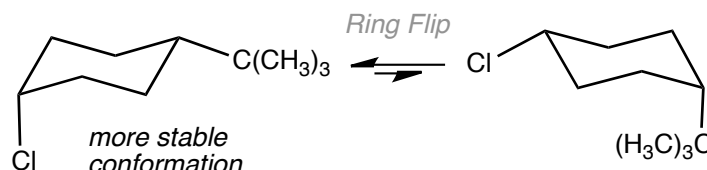
T = Top face B = Bottom face



- Axial positions become equatorial
- Top positions remain on top
- Bottom positions remain on bottom

Stability

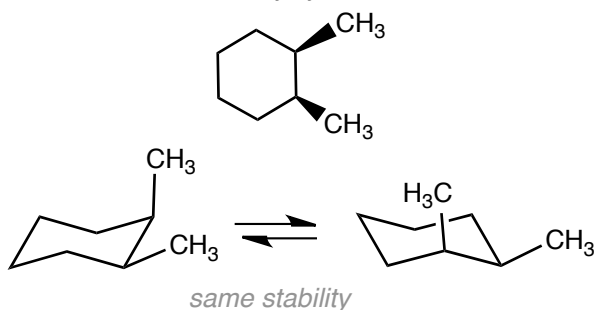
The more stable conformation will typically have the most sterically hindered ("bulkiest") group in the **equatorial** position



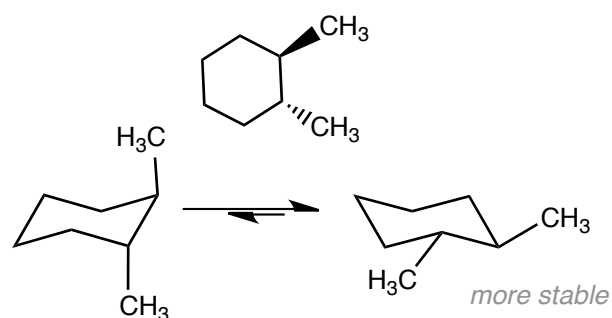
Example

Determine the more stable conformation for each cyclohexane molecule

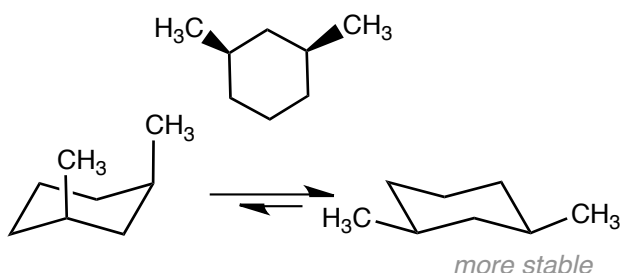
cis-1,2-dimethylcyclohexane



trans-1,2-dimethylcyclohexane



cis-1,3-dimethylcyclohexane



trans-1,3-dimethylcyclohexane

