Chemistry 2500 (Fall 2017): Assignment #6 – Conformers

1. For each of the following molecules, draw both chair conformers and indicate which one is the most stable.

2. a) Draw the two chair conformations of the following disubstituted cyclohexane. Make sure your drawings clearly and accurately show the positions of the substituents and only include the H atoms that are bound to the C atoms that bear the methyl and isopropyl substituents.

- b) Speculate as to which of the two conformations in (a) is more stable and *briefly* explain your reasoning. Be sure mention the interactions involved.
- 3. Draw the most stable conformation for 2-chloro-3-methylbutane as both a Lewis Structure and Newman Projection (use the C2–C3 bond).
- 4. Convert the following molecule into its Fischer projection.

5. Convert the following molecule into its Fischer projection