
2. Draw conformational isomers using Newman projections for each of the following. Which is the most stable conformer?
   a. butane (rotate along C₁-C₂ bond)
   b. 1-bromopentane (rotate along C₁-C₂ bond)
   c. 2-chloro-3-methylpentane (rotate along C₂-C₃ bond)

3. Draw the chair conformers and determine relative stability for each of the following.
   a. cis-1,2-dimethylcyclohexane
   b. cis-1,3-dibromocyclohexane
   c. trans-1-chloro-3-isopropylcyclohexane

4. Draw the following using Kekule-Lewis structures. They should all contain what feature?
   a. 2-methyl-3-ethyl-2-hexene
   b. 3-bromo-1-tert-butylcyclopentene
   c. cis-3-heptene
   d. trans-3-chloro-3-hexene
   e. (Z)-1-bromo-2-methyl-1-butene
   f. (E)-3-isopropyl-1,3-pentadiene