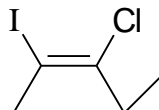
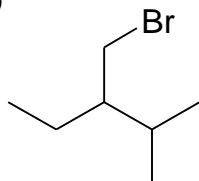


CHM 2210 - Ch 10 Homework

1. Name the following molecules. Review the nomenclature rules in chapters 3 and 10 of the class notes and/or in sections 3-4 (steps 1 and 5) and 10-1 of McMurry. Also, review the rules for geometric isomerism (E/Z) in chapter 7 of the class notes and/or section 7-5 of McMurry. (1 pt)



2. Review Figure 4-6b in McMurry, then draw *trans*-1-chloro-2-methylcyclopentane with 3D details. Review Figure 4-7b in McMurry, then draw *cis*-1-chloro-3-methylcyclohexane in 3D as well. Draw the cyclohexane (not the cyclopentane) in its most stable chair conformation (without diaxial interactions), then label the axial and equatorial substituents. (1 pt)

5. Review Grignard reagents in the class notes and in section 10-6 of McMurry. Then, diagram the reaction of 2-bromopropane with Mg in ether. Name the alkylmagnesium halide product also. Finally, show how that product reacts with H_3O^+ . (1 pt)
6. Review Gilman reagents in the class notes. Review section 10-7 and problem 10-11a/b in McMurry, also. Diagram the reaction of 2-bromopropane with two equivalents of Li in pentane. Then, write the reaction of the organolithium product (two equivalents) with CuI to form a Gilman reagent. Then, show the Gilman reagent's alkyl coupling reaction with bromoethane. Name the final product as well. (3 pts)