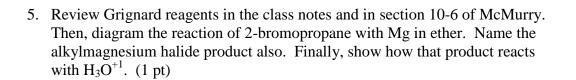
1. Name the following molecules. Review the nomenclature rules in chapters 3 and 10 of the class notes and/or in sections 3-4 (steps 1 and 5) and 10-1 of McMurry. Also, review the rules for geometric isomerism (E/Z) in chapter 7 of the class notes and/or section 7-5 of McMurry. (1 pt)

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)

3.	Review allyl radical halogenation of alkenes in the class notes and in sections 10-3 and 10-4 of McMurry. Then, review Example 10-1 in McMurry, where N-bromosuccinimide (NBS) reacts with 4,4-dimethylcyclohexene. Note that the example in the text does <i>not</i> show the allyl free-radicals. Show how all four free-radical intermediates are formed, including the resonance that stabilizes them. Show their products as well. (2 pts)
4.	Diagram all of the alcohols, reagents, solvents, and temperatures needed to create the following alkyl halides. Include the structures of the intermediates and the products.
a.	2-iodo-2-methylpropane. Review class notes and Figure 11-13 (reaction mechanism) in McMurry. (1 pt)
b.	2-bromopropane. Review class notes and/or review the reaction with the dibromophosphite intermediate in section 11-3 of McMurry. (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)