**Assignment #4 (Due Mar 3, 2023)**

**Chem 436 – Spring 2023**

1) Propose a multistep synthesis for each of the intermediates / products in the following questions. Show all relevant reagents, solvents, and reaction conditions.

a)





b)





c)





2) Starting from ANY reagent, come up with two multistep reaction sequences that must be at least five steps long. At least one reaction must be from Chapter 20 (The Chemistry of Carboxylic Acids).

a)

b)

3) How do you think you did in Midterm #1? What changes will you make to improve your results?