**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**UIN: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Chem 436 Midterm Exam #3 (Spring 2022)**

1. Fill in the box with the reagents or product. (4 pts each)



















2. Draw the complete mechanism, including the generation of reactive reagents, for the following reactions (10 pts each)







3. Complete ONLY two of the following synthesis questions. If you complete more than two, only the first two will be graded. Show all reagents, intermediates, and products of each transformation. (12 pts each)









or







or





\* Other acceptable (and anticipated answers will involve turning the bromo into a Grignard and then a aldehyde. This can then be followed by reductive amination)