PRACTICE SHEET CHAPTER 10 and CHAPTER 11

1. Draw the major organic products formed in the following reactions, clearly showing all appropriate regio- and stereochemistry.



1. Provide starting materials in the boxes below to complete the following reactions.



1. Each of the following conversions requires more than one step. Show reagents and experimental conditions necessary to bring about each conversion.



1. Give the major organic products of each of the following reactions or sequences of reactions.

|  |  |
| --- | --- |
| a. |  |
| b. |  |
| c. |  |
| d. |  |

1. **Multistep synthesis**. Show how you would synthesize 4-methylpentanal (shown below) starting from acetylene (ethyne) and 1-bromo-2-methylpropane. You can use any reagents you deem necessary for your synthesis. Be sure to show the structures of intermediate structures along the pathway to the final product. (*Note: You don’t need to write any mechanisms here*.)

