1. (4 points) Write the name IUPAC name for each of the following compounds.



 \_\_\_3-cyclopentyl propanoic acid\_\_\_ \_\_\_\_\_\_\_ethyl benzoate\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. (6 points) Draw the structure of each of the following:

 Isobutyl formate 2,5-Dimethyloctandioic acid m-Chlorobenzoic acid

  

1. (8 points) Complete the following reactions supplying the most appropriate reactant(s) or product(s).

 

 

  



1. (3 points) Arrange the 4 compounds below in order of DECREASING boiling point beginning with the highest:





1. (3 points) Identify the following as a hemiacetal , acetal or neither

