1. Give a name for each of the following structures.

a) b) c)



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d) e) f)



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1. Give a name for each of the following structures (tough naming)

 

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1. Draw the structure for each of the following names.
   1. *cis*-4-methyl-2 hexenal
   2. isopropyl butanoate
   3. N,N-dimethylpropanamide
2. Give the products of the following reactions:































1. **Except for alkyl/cycloalkyl groups**, circle and name the 5 different functional groups in this molecule below



1. Determine the acidity of the following molecules (6 pts)



1. Butanal and propanoic acid have almost the same molar mass yet the boiling point of

propanoic acid is 141oC while the boiling point of butanal is 78 oC. Explain why with words and illustration.

1. Rank the following molecules in terms of solubility in water explain your reasoning (6 pts)



Explain