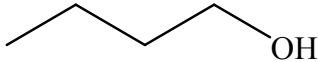
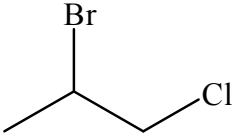
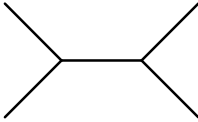
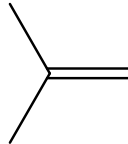
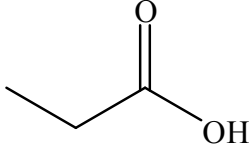
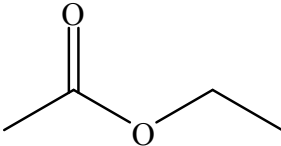
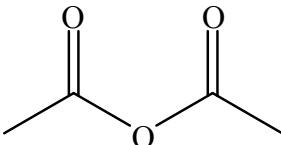
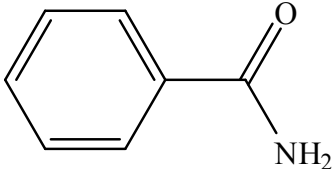


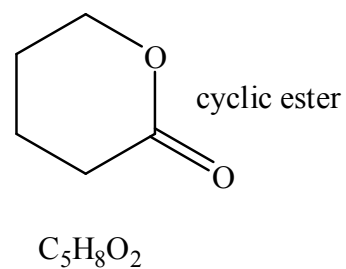
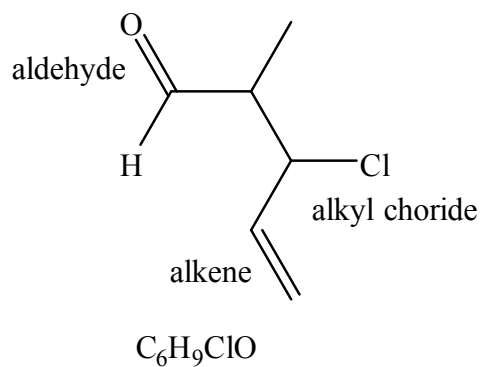
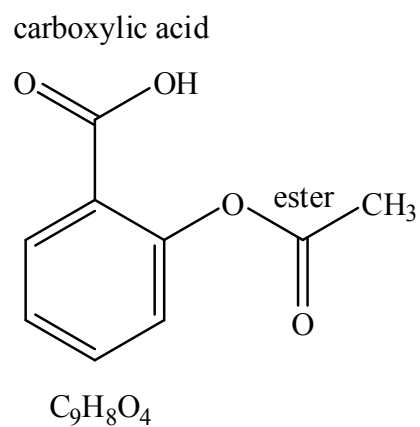
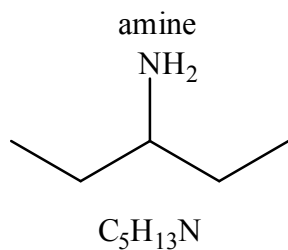
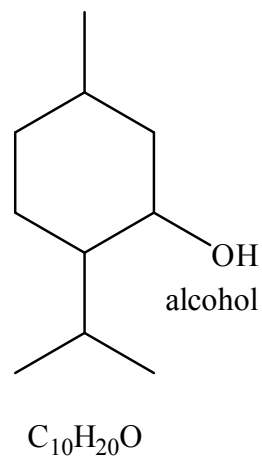
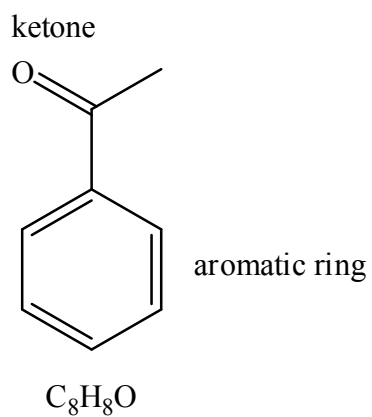
CHEM1102 Answers to Problem Sheet 1 (Week 1)

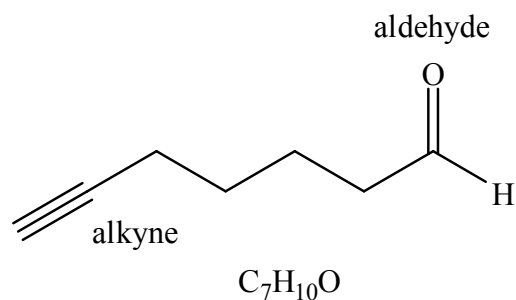
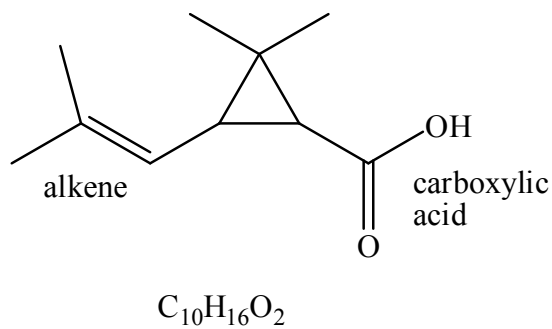
1.

| Compound | Condensed structural formula | Stick representation |
|---|--|---|
| $\text{CH}_3\text{CH}_2\text{CH}_2\text{CH}_2\text{OH}$ | $\text{CH}_3-\text{CH}_2-\text{CH}_2-\text{CH}_2-\text{OH}$ |  butan-1-ol |
| $\text{CH}_3\text{CHBrCH}_2\text{Cl}$ | $\begin{array}{c} \text{Br} \\ \\ \text{CH}_3-\text{CH}-\text{CH}_2-\text{Cl} \end{array}$ |  2-bromo-1-chloropropane |
| $(\text{CH}_3)_2\text{CHCH}(\text{CH}_3)_2$ | $\begin{array}{c} \text{H}_3\text{C} \quad \quad \text{CH}_3 \\ \quad \diagdown \quad \diagup \\ \quad \text{CH}-\text{CH} \\ \quad \diagup \quad \diagdown \\ \text{H}_3\text{C} \quad \quad \text{CH}_3 \end{array}$ |  2,3-dimethylbutane |
| $(\text{CH}_3)_2\text{CCH}_2$ | $\begin{array}{c} \text{H}_3\text{C} \\ \quad \diagdown \\ \quad \text{C}=\text{CH}_2 \\ \quad \diagup \\ \text{H}_3\text{C} \end{array}$ |  2-methylprop-1-ene |
| $\text{CH}_3\text{CH}_2\text{COOH}$ | $\begin{array}{c} \quad \quad \quad \text{O} \\ \quad \quad \quad \\ \text{CH}_3-\text{CH}_2-\text{C}-\text{OH} \end{array}$ |  propionic acid |
| $\text{CH}_3\text{COOCH}_2\text{CH}_3$ | $\begin{array}{c} \quad \quad \quad \text{O} \\ \quad \quad \quad \\ \text{CH}_3-\text{C}-\text{O}-\text{CH}_2-\text{CH}_3 \end{array}$ |  ethyl acetate |
| $\text{CH}_3\text{COOCOCH}_3$ | $\begin{array}{c} \quad \quad \quad \text{O} \quad \quad \quad \text{O} \\ \quad \quad \quad \quad \quad \quad \\ \text{CH}_3-\text{C}-\text{O}-\text{C}-\text{CH}_3 \end{array}$ |  acetic anhydride |

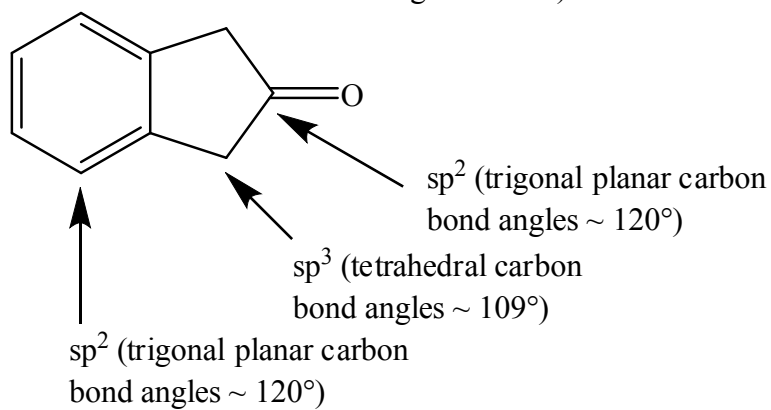
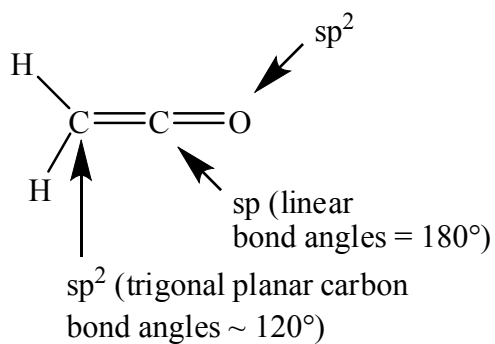
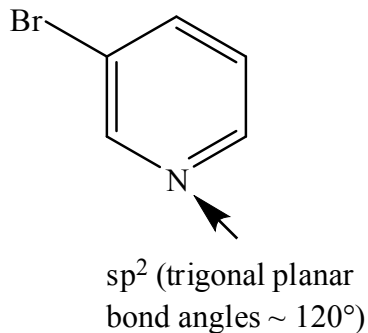
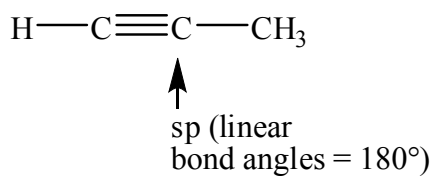
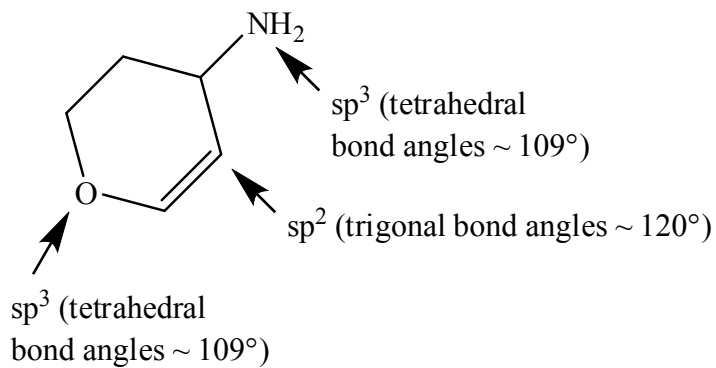
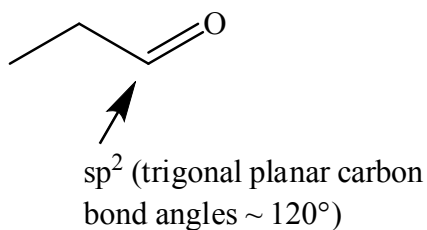
| | | |
|------------------------------|---------------------|---|
| benzamide ($C_6H_5CONH_2$) | $C_6H_5-C(=O)-NH_2$ |  <p style="text-align: center;">benzamide</p> |
|------------------------------|---------------------|---|

2.





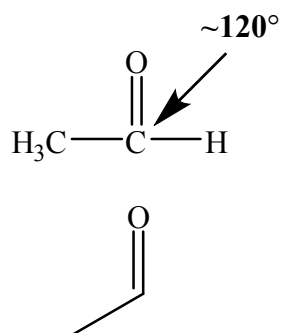
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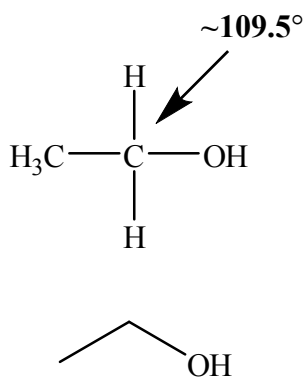
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4.

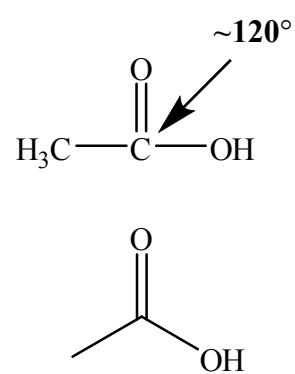
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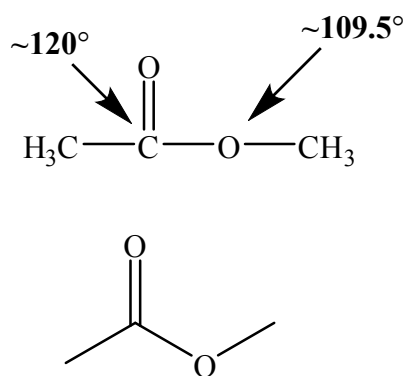
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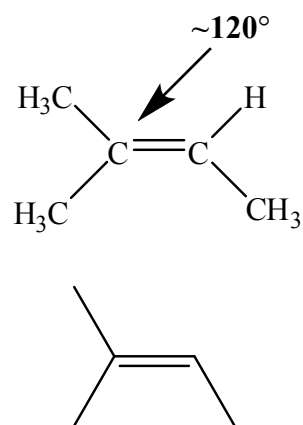
(c)



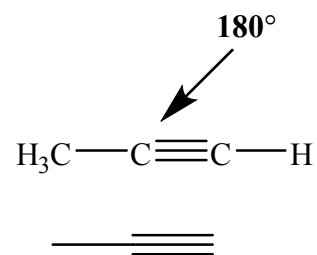
(d)



(e)



(f)



(g)

