

Last Name:

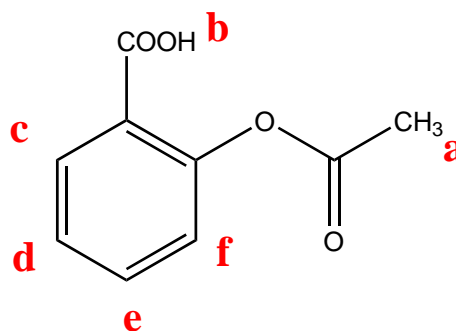
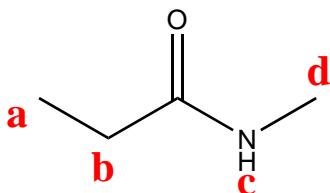
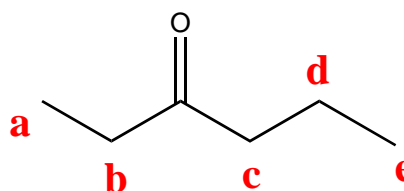
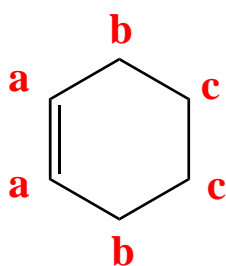
First Name:

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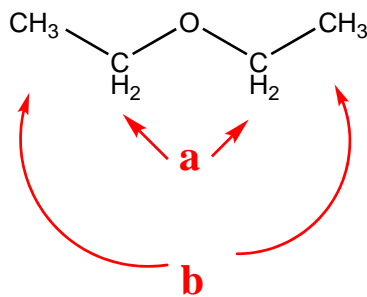
SCORE: KEY

DEADLINE FOR CH 318 POW 2: SEPT 14, 2009 3:00 PM

Instructions for this set: For the following structures, label the equivalent protons with the "a, b, c" lettering system.



Asprin (salicylic acid)



CALCULATE THE INDEX OF HYDROGEN DEFICIENCY IN THE FOLLOWING FORMULAS:

|              |                   | Reference Hydrocarbon | Index of Hydrogen Deficiency |
|--------------|-------------------|-----------------------|------------------------------|
| $C_7H_{12}$  | $\longrightarrow$ | $C_7H_{16}$           | $\frac{16-12}{2} = 2$        |
| $C_4H_8O_2$  | $\longrightarrow$ | $C_4H_{10}$           | $\frac{10-8}{2} = 1$         |
| $C_5H_{10}O$ | $\longrightarrow$ | $C_5H_{12}$           | $\frac{12-10}{2} = 1$        |
| $C_5H_{12}O$ | $\longrightarrow$ | $C_5H_{12}$           | $\frac{12-12}{2} = 0$        |
| $C_3H_6O$    | $\longrightarrow$ | $C_3H_8$              | $\frac{8-6}{2} = 1$          |