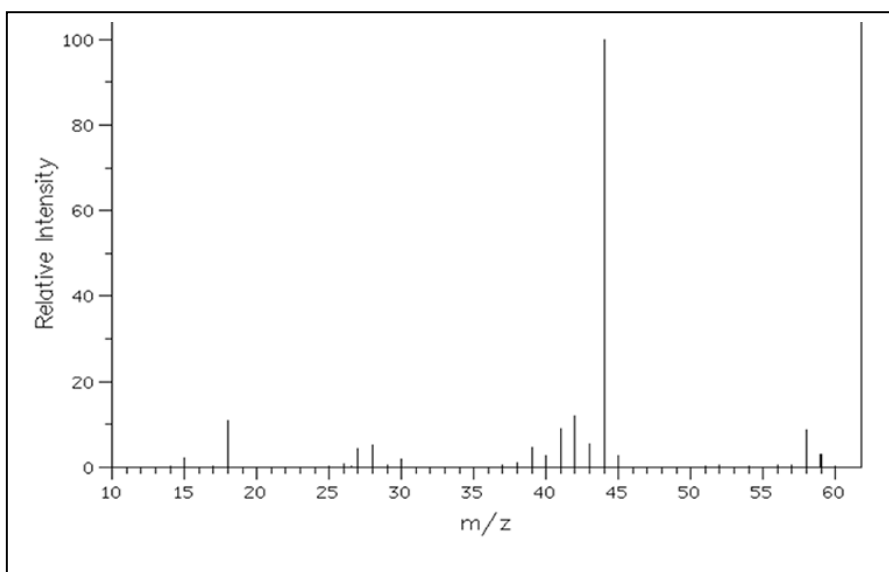
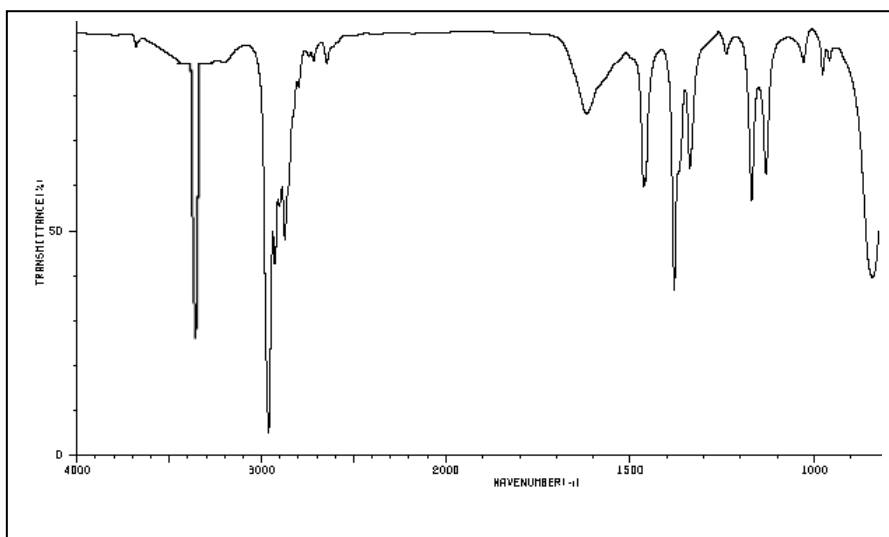
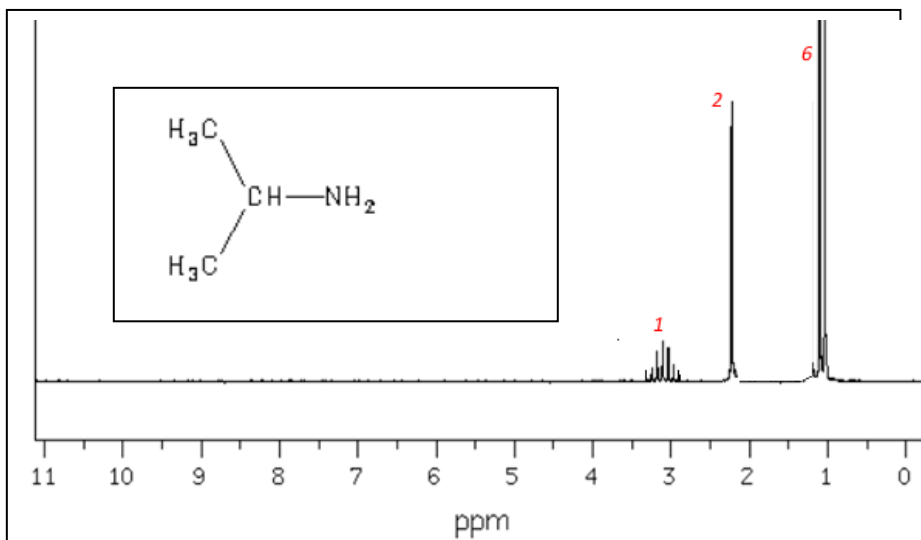


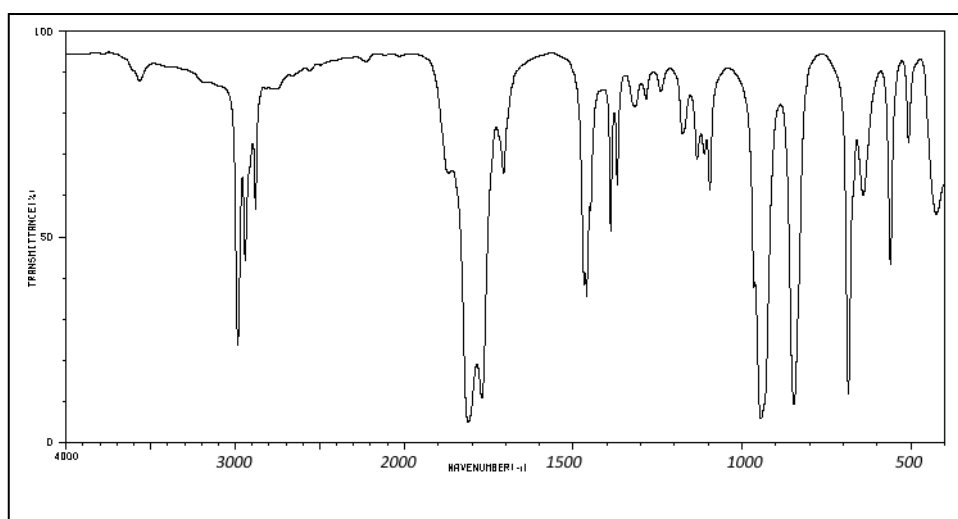
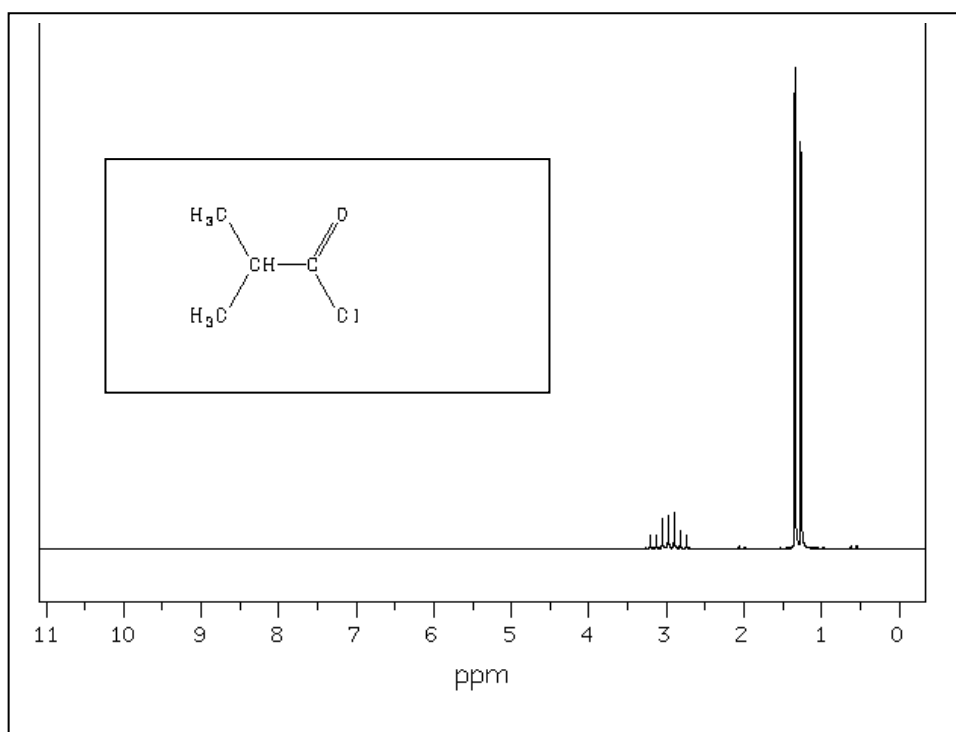
Friday Worksheet 3
Infrared Radiation (IR)

Name:

- 1) The ^1H NMR, IR and the MS of a compound with the **empirical** formula $\text{C}_3\text{H}_9\text{N}$ are shown below. Draw its structural formula in the box labelled "A" below.



- 2) Below are the ^1H NMR and IR spectra of a molecule with the molecular formula $\text{C}_4\text{H}_7\text{ClO}$. Draw the structural formula of the compound in the box labelled "A" below.



- 3) Which of the following molecules cannot be identified through IR? Explain why.
 CH_3OH , CO_2 , Cl_2 , CH_4 and O_2 .

[Solution](#)