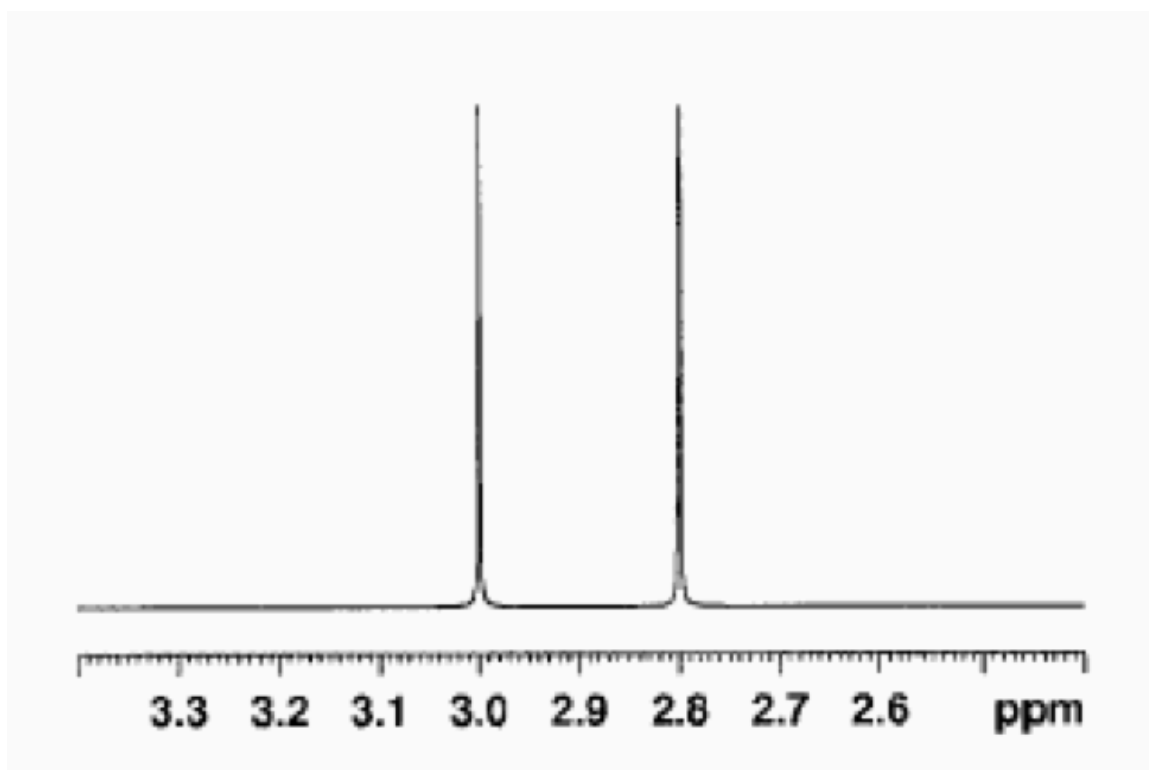


Homework #7

Name: \_\_\_\_\_.

- 1) (3 pts) Explain the portion of a  $^1\text{H-NMR}$  spectrum of  $\text{HCON}(\text{CH}_3)_2$  (only methyl resonances are shown). Please keep your answer short (only one sentence is necessary.)

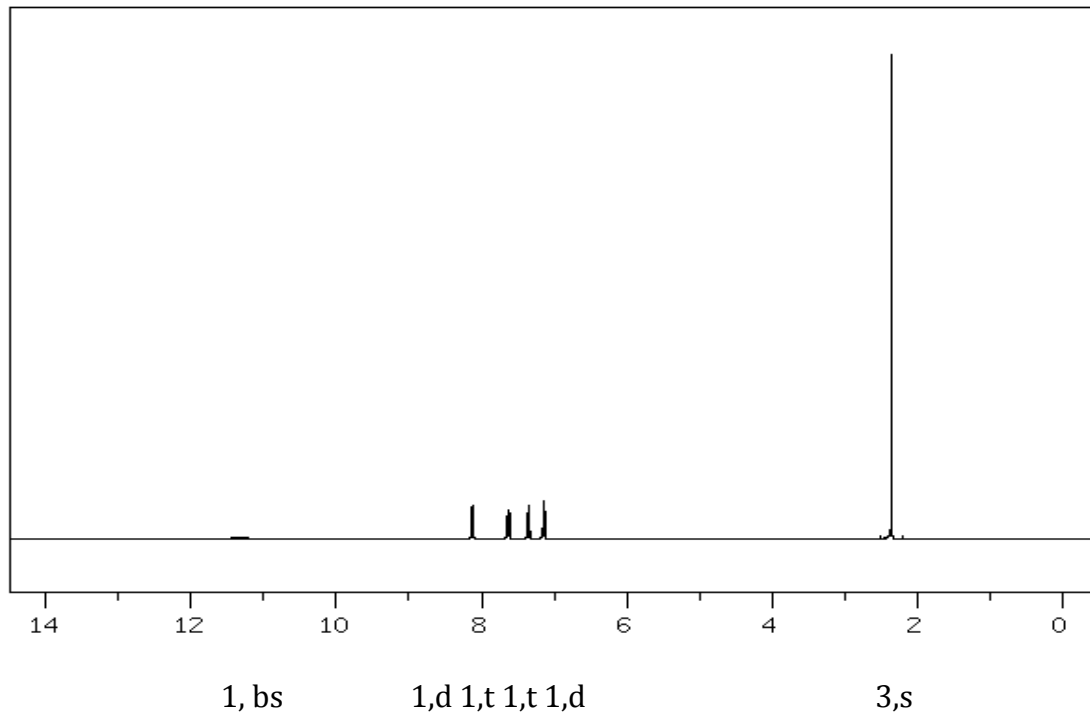


- 2) (7 pts) Determine the identity of an unknown material that you received from a colleague. You have no instruments available, but you are given three pieces of data to help you determine your unknown.

Show your work at each step.

- a) Elemental analysis indicates: C (60.0%), H (4.5), O (35.5)

b)  $^1\text{H-NMR}$  spectra



c) IR spectra

