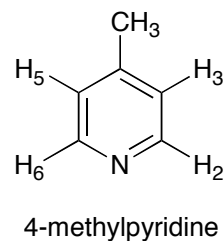
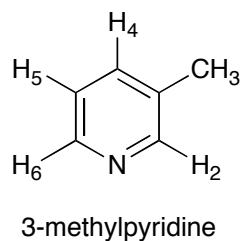
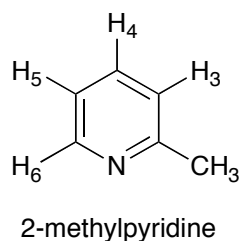
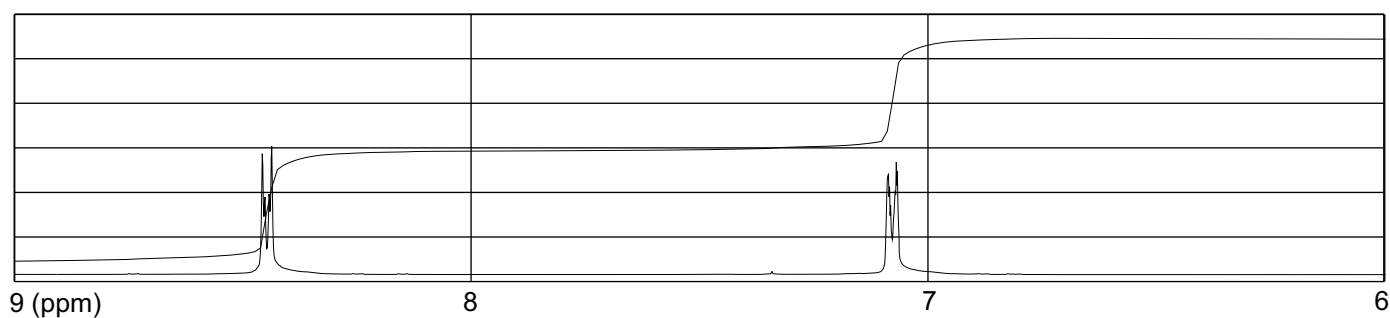


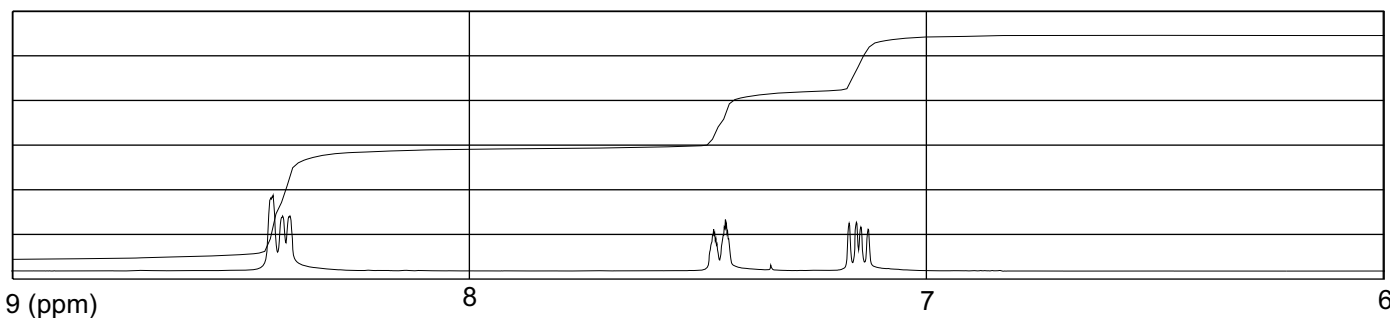
**2b.** 300 MHz  $^1\text{H}$  NMR spectra are shown below for 2-methylpyridine, 3-methylpyridine, and 4-methylpyridine. Match each spectrum to the appropriate compound and assign the resonances of the spectrum to the appropriate protons in the compound. (13 points)



**SPECTRUM D. Identify the compound** (here) \_\_\_\_\_ **and label the peaks** (below) with the corresponding proton (with labels selected among  $\text{H}_2$ ,  $\text{H}_3$ ,  $\text{H}_4$ ,  $\text{H}_5$ , and  $\text{H}_6$  as appropriate).



**SPECTRUM E. Identify the compound** (here) \_\_\_\_\_ **and label the peaks** (below) with the corresponding proton (with labels selected among  $\text{H}_2$ ,  $\text{H}_3$ ,  $\text{H}_4$ ,  $\text{H}_5$ , and  $\text{H}_6$  as appropriate).



**SPECTRUM F. Identify the compound** (here) \_\_\_\_\_ **and label the peaks** (below) with the corresponding proton (with labels selected among  $\text{H}_2$ ,  $\text{H}_3$ ,  $\text{H}_4$ ,  $\text{H}_5$ , and  $\text{H}_6$  as appropriate).

