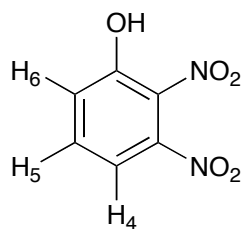
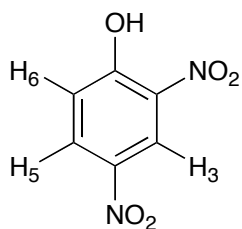


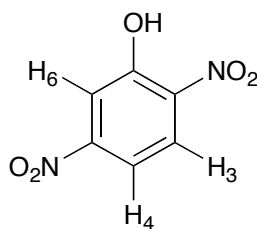
2a. 300 MHz ^1H NMR spectra are shown below for three of the following isomers of dinitrophenol. Match each spectrum to the appropriate compound and assign the resonances of the spectrum to the appropriate protons in the compound. (12 points)



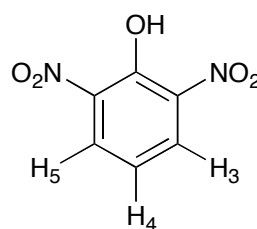
2,3-dinitrophenol



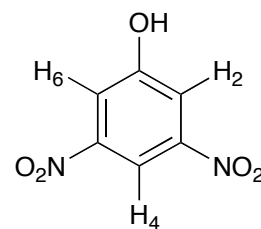
2,4-dinitrophenol



2,5-dinitrophenol

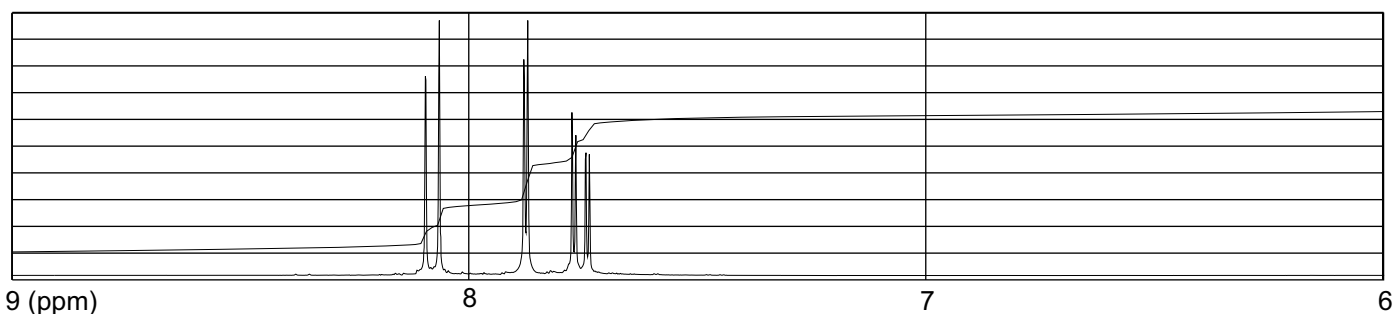


2,6-dinitrophenol

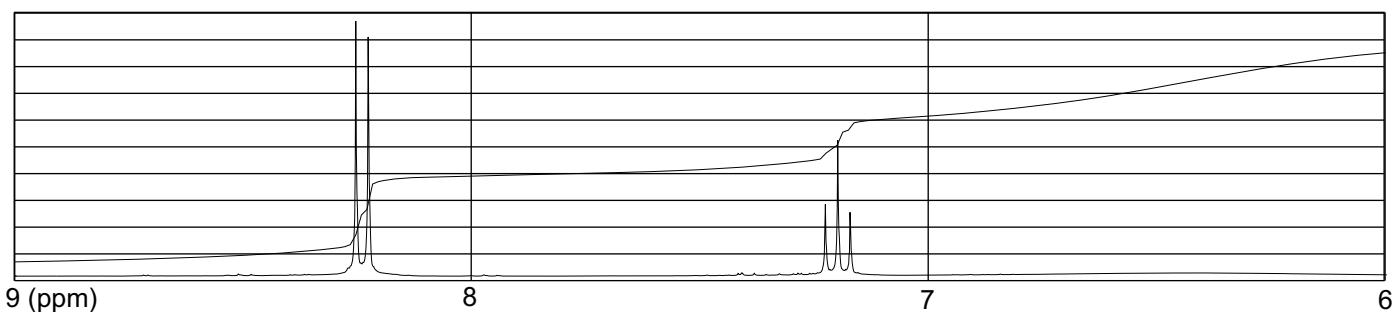


3,5-dinitrophenol

SPECTRUM A. Identify the compound (here) _____ **and label the peaks** (below) with the corresponding proton (with labels selected among H₂, H₃, H₄, H₅, and H₆ as appropriate).



SPECTRUM B. Identify the compound (here) _____ **and label the peaks** (below) with the corresponding proton (with labels selected among H₂, H₃, H₄, H₅, and H₆ as appropriate).



SPECTRUM C. Identify the compound (here) _____ **and label the peaks** (below) with the corresponding proton (with labels selected among H₂, H₃, H₄, H₅, and H₆ as appropriate).

