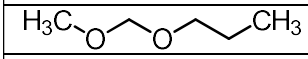
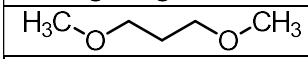
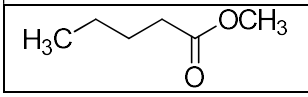
Exercise problems from Lecture 18:

Q1. Match the following compounds with their correct values.

CH_3Cl	δ = 7.3 ppm
CH_2Cl_2	δ = 3.1 ppm
$CHCl_3$	δ = 5.3 ppm

Q2. Complete the following table

Compound	No of ^{1}H-NMR signals	Label the most shielded and de-shielded protons
		
		
		

Q3. What is the absolute chemical shift δ (in ppm) for a proton with resonating frequency of 500,002,000 Hz on a 500 MHz NMR instrument.

Q4. A proton resonate at chemical shift δ = 3.2 ppm (in ^{1}H-NMR) on a 300 MHz instrument. What would be the change in chemical shift δ (in ppm) of this proton on 600 MHz instrument.