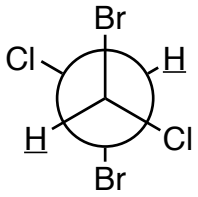
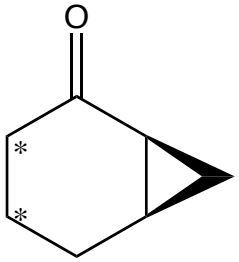
Chemistry 256 **Workshop #8 Exercise** **Spring 2016**
Prof. Loyd Bastin

1. (a) Identify the symmetrical relationship (homotopic, enantiotopic, diastereotopic) of the indicated atoms in the following molecules. (b) Predict the number of peaks that will be present in the ^{1}H and ^{13}C-NMR spectra for each molecule.

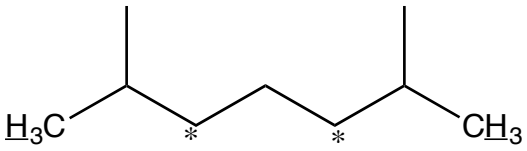
(a)



(b)



(c)



2. Predict the ^{1}H and ^{13}C NMR spectrum (number of signals and chemical shift of each signal) of 2-chloropropane and 1,2-dichloropropane.