

A large number of fairly straight forward 'predict the product' H NMR problems are listed below. Some are really easy and some are a bit more challenging. Use the molecular formulas along with the chemical shifts, multiplicities and integrations to determine a reasonable structure for the following molecules. Approximate coupling constants are indicated. The multiplicities are s = singlet, d = doublet, t = triplet, q = quartet, qnt = quintet, sex = sextet, se = septet, o = octet, n = nonet, m = multiplet. The degree of unsaturation can help determine the possible number of rings and/or pi bonds. Match each type of hydrogen in the problems with the hydrogen atoms in your structures. Several C NMR problems follow. Propose reasonable structures.













