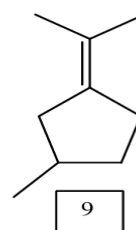
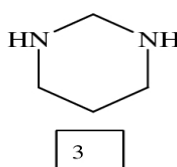
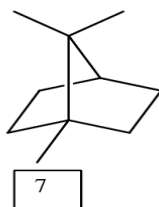
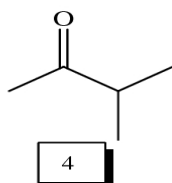
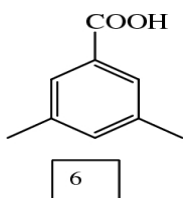
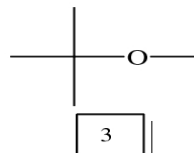
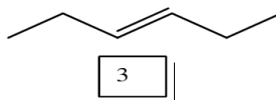
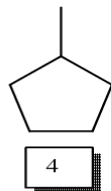
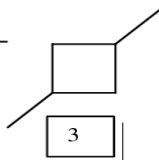
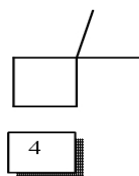


¹³C NMR spectroscopy worksheet (30 points)

due 10/15/09 in class

Name _____ AI: _____

1. For each structure, determine how many carbon signals that would be observed in the ¹³C NMR. (5 points)



2. Compound F, a hydrocarbon, undergoes a reaction with HBr to yield compound G. Propose the structures for F and G, whose ¹³C NMR data is given below. Be provide reasoning which indicated which piece of spectral data are revealing to you for partial credit. (5 points)

Compound F:

¹³C NMR: 27.6, 29.3, 32.2, 132.4

DEPT - 135: Positive peak 132.4

Negative Peaks: 27.6, 29.3, 32.2

Compound G:

¹³C NMR: 25.1, 27.7, 39.9, 56.0

Positive peak: 56.0

Negative peaks: 25.1, 27.7, 39.9

