

## Homework Key 2

1. Solve the following structures from their C-13 spectra:

Molecular Formula	chemical shifts (DEPT results,* intensity)
C <sub>7</sub> H <sub>16</sub>	32 (und, 1), 29 (und, 2), 23 (und, 2), 14 (unu, 2)
C <sub>7</sub> H <sub>16</sub>	42 (uuu, 1), 25(und, 3), 11 (unu, 3)
C <sub>7</sub> H <sub>16</sub>	34 (und, 2), 33(nnn, 1?), 26 (unu, 2), 8 (unu, 2)

\*u = up, d = down, n = no peak

First compound: *n*-heptane

Second compound: 3-ethylpentane

Third compound: 3,3-dimethylpentane