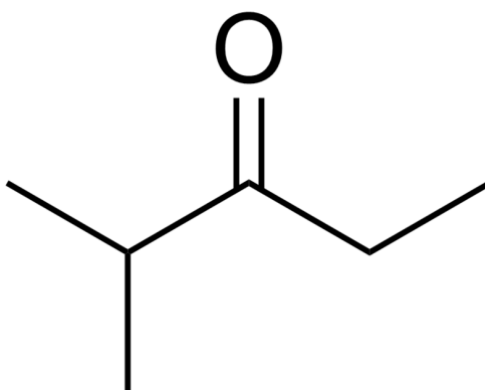


Jigsaw 2D

Combining your knowledge: Spectrum from a molecule
[Typical exam question]

The structure of 2-methyl-3-pentanone is given below.



1. Predict the ^1H spectrum. Show the relative intensities and the multiplicity expected from each hydrogen environment due to 3-bond couplings. Be sure to label the expected chemical shift of each peak.

2. How many signals would the ^{13}C spectrum of the molecule have if it was recorded (i) with and (ii) without proton decoupling?