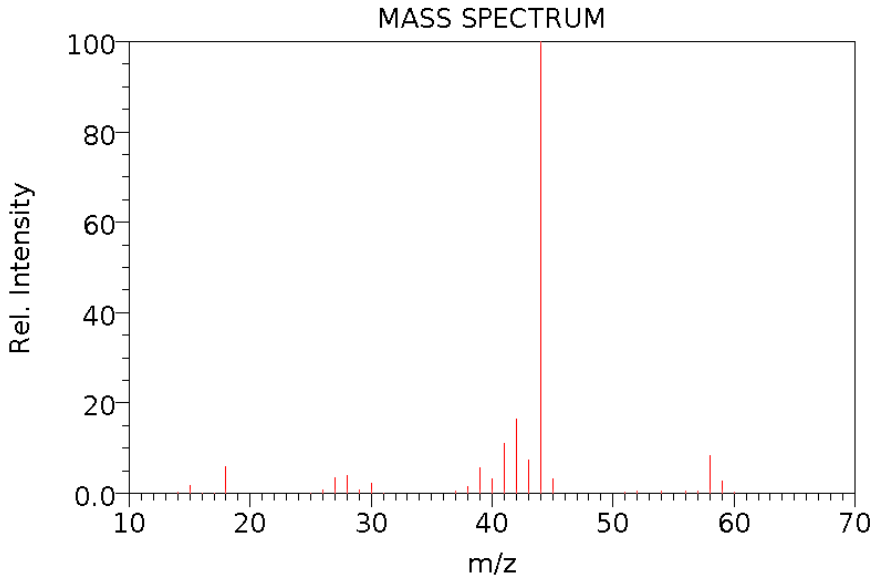
Chemistry 3.2 **Worksheet 2** Name _____

Compound B is a primary amine

a) The mass spectrum for compound B is given below



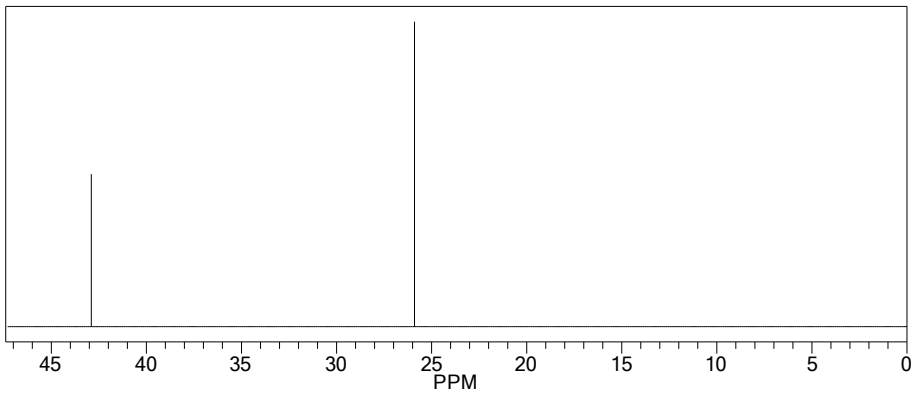
a. Use the mass spectrum to work out the molar mass of compound B and hence workout the molecular formula. Justify your answer

b. Explain the most likely reason for peak at 44 m/z

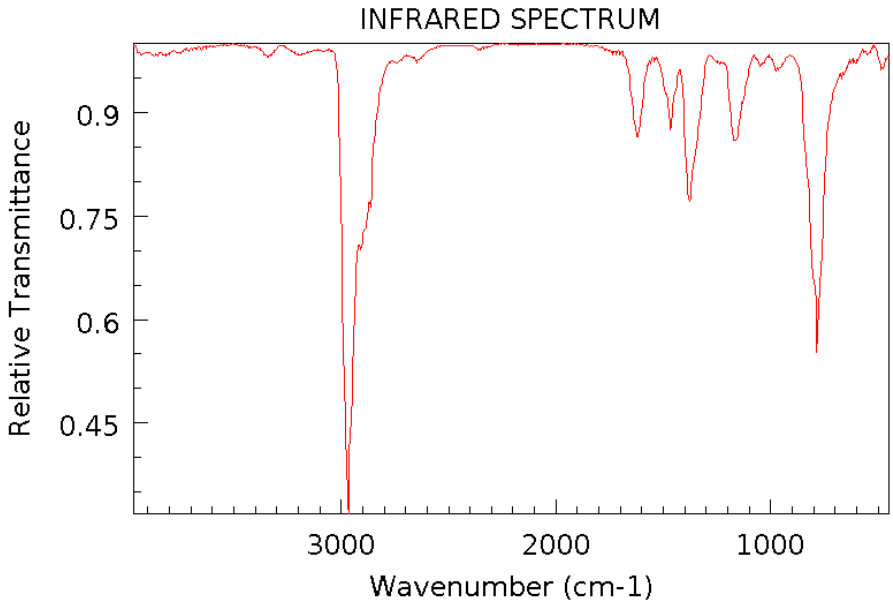
b) Compound B has 2 possible isomers. Draw the two possible isomers

a. Determine the number of carbon environments for each of these isomers

b. The ^{13}C NMR spectrum for compound B is given below. Identify which of structure above matches that compound B



c. The IR spectrum of Compound B is shown below.



Mr Yung thinks there is something wrong with this spectrum; discuss why Mr Yung would think that.