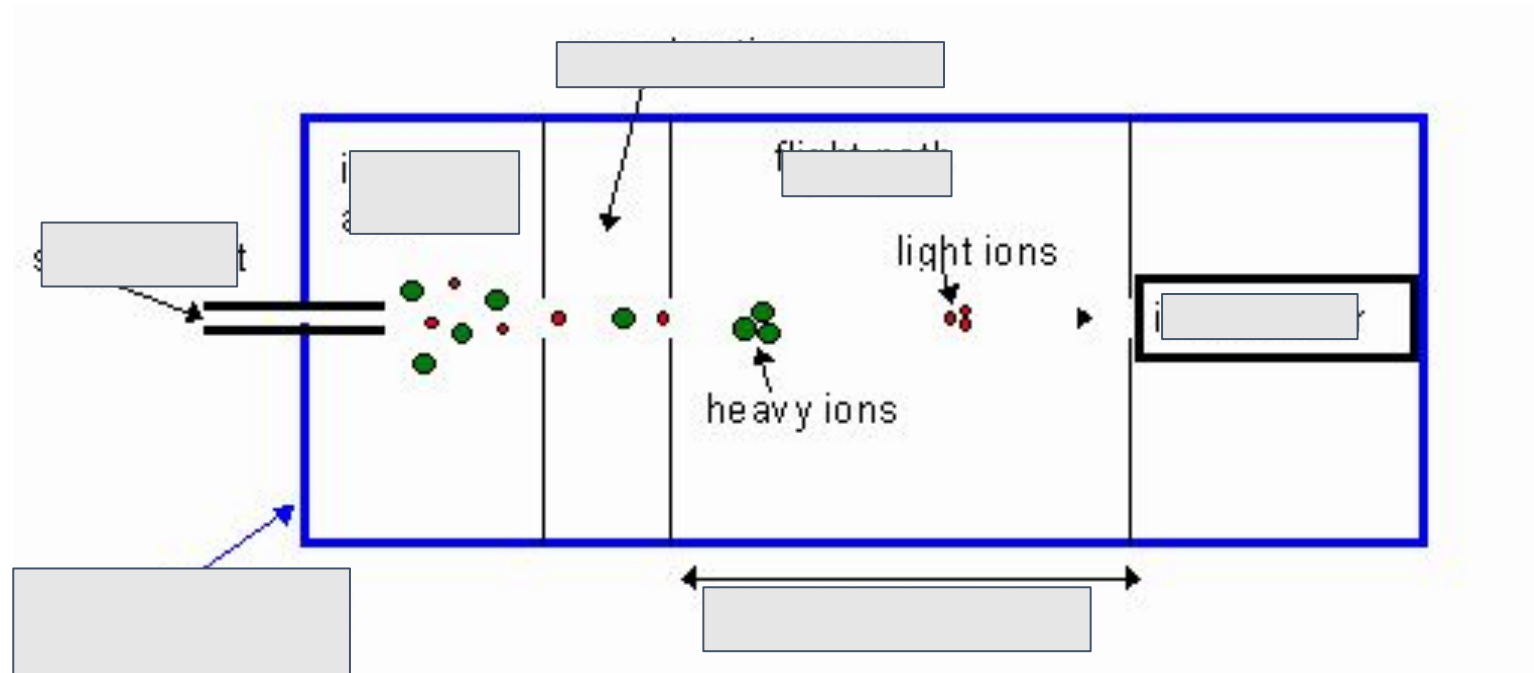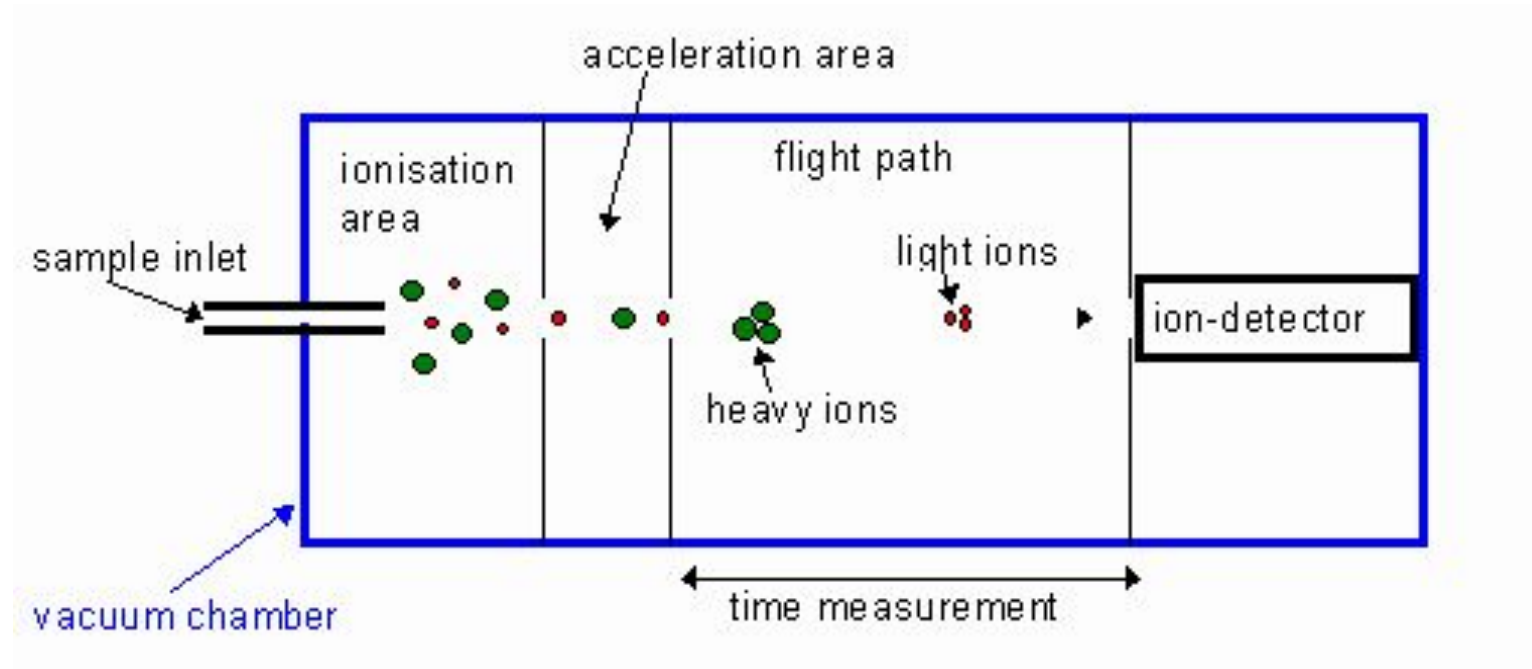1. Name the different part of the mass spectrum from the diagram below:

1. Name the different part of the mass spectrum from the diagram below:

2. How do you use the mass spectrum to calculate the relative mass ?

2. How do you use the mass spectrum to calculate the relative mass ?

Find the intensity of each M/Z (or mr) from the graph you get from the mass spectrum and multiply it together. Intensity*M/Z than you add any other intensities. Lastly you divide everything by 100
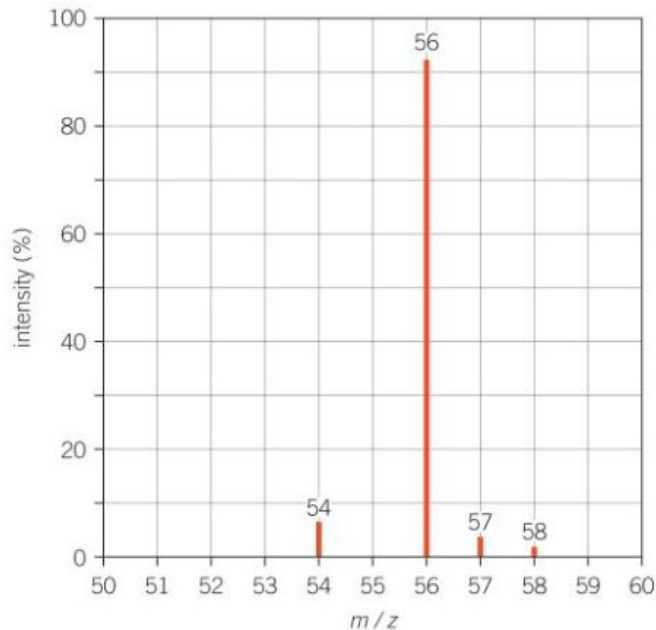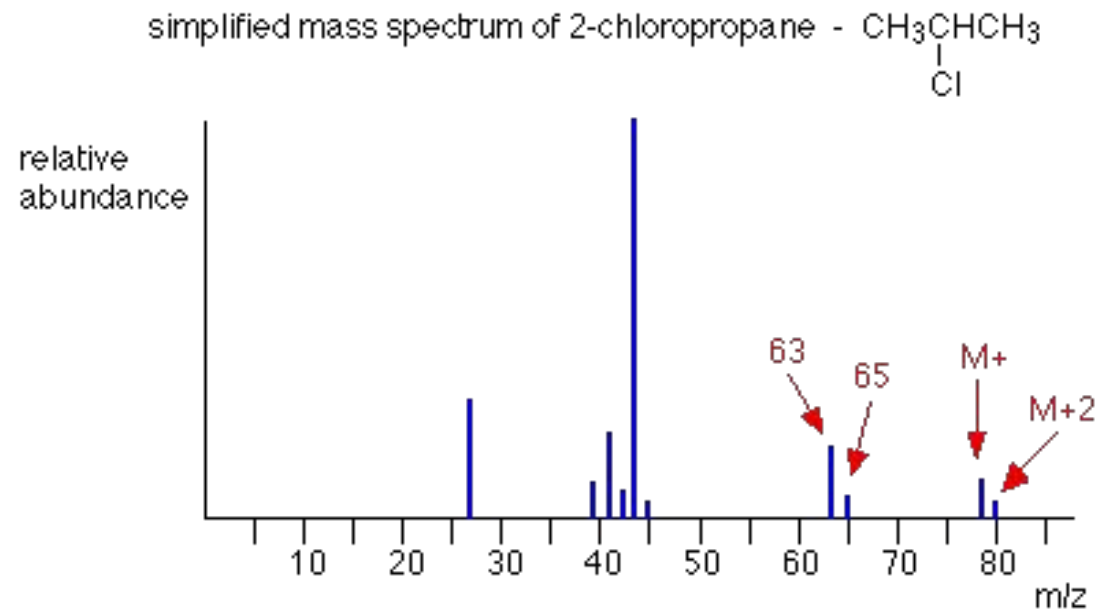
3. How do you find the Mr of the compound from this mass spectrum?

simplified mass spectrum of 2-chloropropane - CH_3CHCH_3
$|$
Cl

relative abundance

63   65   M+   M+2

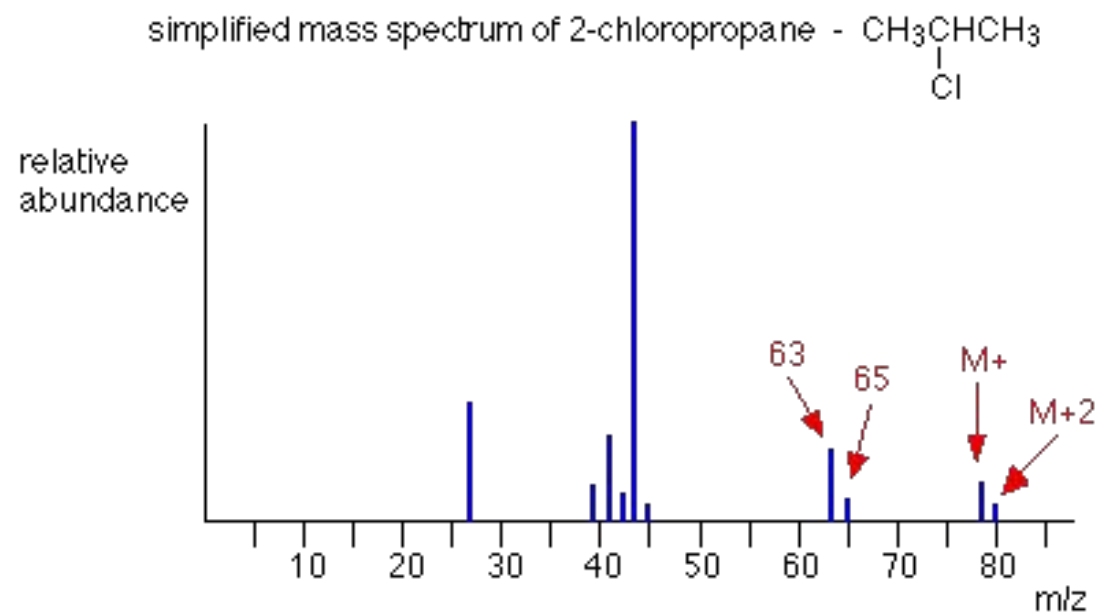10   20   30   40   50   60   70   80

m/z
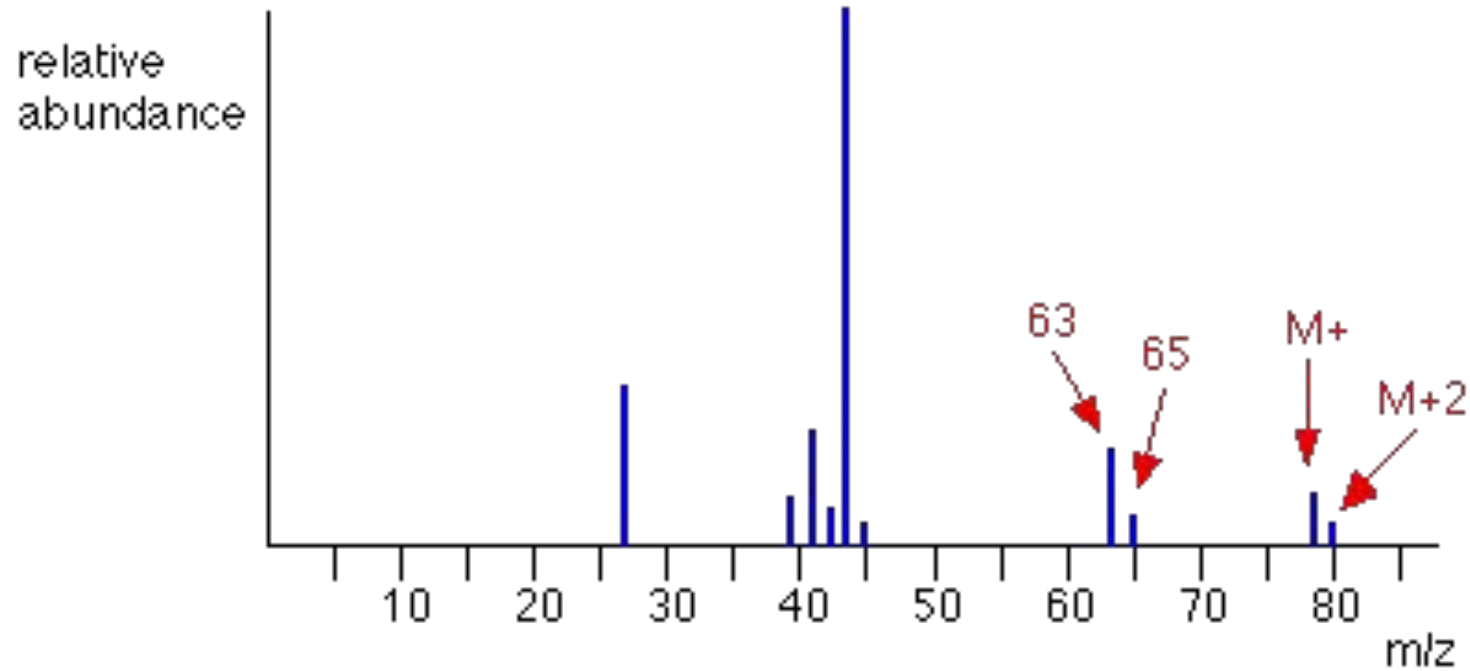
3. How do you find the Mr of the compound from this mass spectrum?

The last peak in the spectrum with the largest Mr but where there is M+ as M+2 would be for Carbon-13 if you have some carbon in your compound your testing.

simplified mass spectrum of 2-chloropropane - CH_3CHCH_3 | Cl

4. What are fragments and how are they created?

simplified mass spectrum of 2-chloropropane - CH_3CHCH_3 with Cl

Labels on peaks: 63, 65, M+, M+2

Axes: relative abundance (vertical), m/z (horizontal) with markings at 10, 20, 30, 40, 50, 60, 70, 80

4. What are fragments and how are they created?

They are formed when the compound has been accelerated and can break at different places. (Think of a glass breaking, It breaks at different places). The pick with the largest relative abundance is the fragment which is most likely to happen during the acceleration.

simplified mass spectrum of 2-chloropropane - CH_3CHCH_3 | Cl