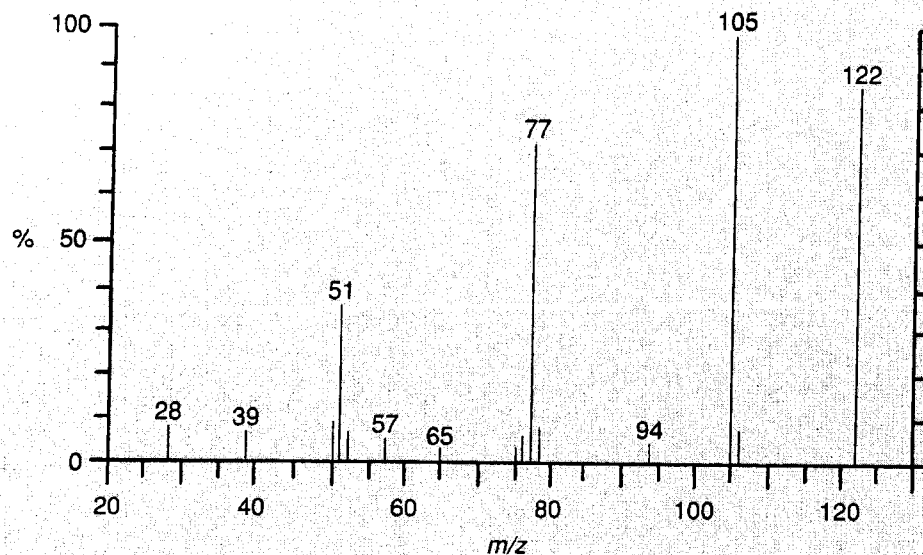


Question

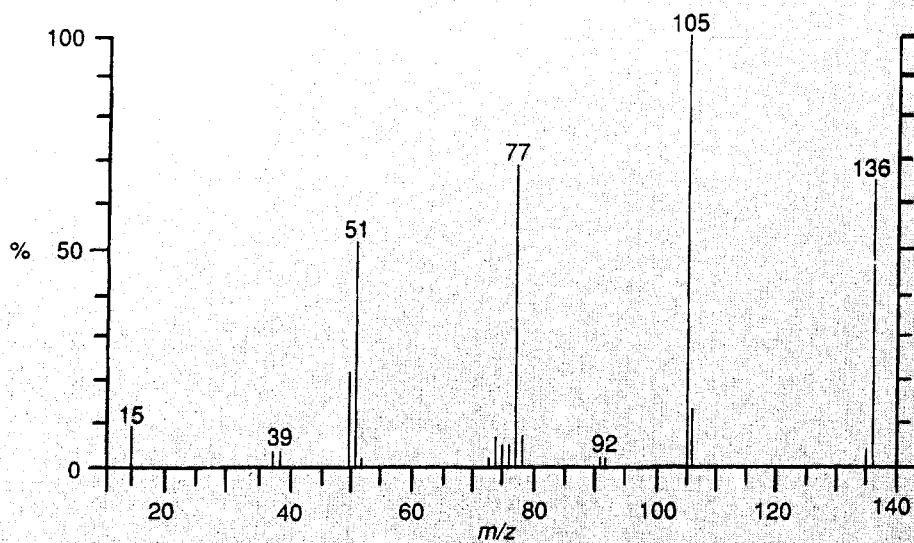
Look at the mass spectra of benzoic acid (Figure 108) and methyl benzoate (Figure 109) and identify the ions responsible for the major peaks in each case.

Figure 108**Answer**

The four major peaks in the mass spectrum of benzoic acid are:

m/z	Ion responsible
122	$\text{C}_6\text{H}_5\text{COOH}^+$
105	$\text{C}_6\text{H}_5\text{CO}^+$
77	C_6H_5^+
51	C_4H_3^+

Figure 109



The four major peaks in the mass spectrum of methyl benzoate are:

m/z	Ion responsible
136	$C_6H_5COOCH_3^+$
105	$C_6H_5CO^+$
77	$C_6H_5^+$
51	$C_4H_3^+$