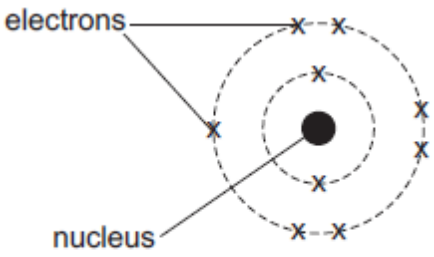
Oxford Cambridge and RSA

GCSE Chemistry B (Twenty First Century Science)

J258/04 Depth in chemistry (Higher Tier)

Question Set 4

1. The diagram shows the arrangement of electrons in an atom of an element, **element X.**



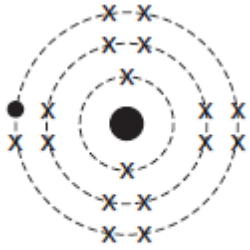
element X

(a) Use the diagram and the Periodic Table to identify the element and to complete the missing information in the table.

Name of element	
Number of electrons	9
Number of protons	
Number of neutrons	
Periodic Table Group	

[3]

(b) The diagram below shows the arrangement of electrons in **an ion** of another element from
the same group, **element Y**.



ion of element Y

(i) What is the charge on the ion? **[2]**

Explain your answer.

(ii) Explain how you can tell from the diagrams that **element X** and **element Y** are in the same group of the Periodic Table. **[1]**

Total Marks for Question Set 4: 6

Resource Materials

The Periodic Table of the Elements