

23 The ions formed when element X and element Y react together are shown.

- Element X forms X^- ions.
- Element Y forms Y^{2+} ions.

Which row identifies the position of X and of Y in the Periodic Table?

	X	Y
A	Group I	Group VI
B	Group VII	Group II
C	Group VII	Group VI
D	Group I	Group II

23 The Periodic Table shows the position of four different elements.

A simplified periodic table with 18 columns and 4 rows. The first two columns are labeled A and C. The next two columns are labeled B and D. The remaining columns are empty. A small square box is located above the 10th column.

Which row is correct?

	element	number of electrons in the outer shell
A	non-metal	1
B	metal	5
C	metal	2
D	non-metal	7

21 The properties of the elements change from left to right across the Periodic Table.

Which statement describes how the properties change across Period 3?

- A** Elements change from gases to solids.
- B** Elements change from non-conductors to electrical conductors.
- C** Elements change from metal to non-metal.
- D** Elements have a decreasing number of electron shells.

22 Element X is in the same group of the Periodic Table as silicon.

An atom of element X has more protons than a silicon atom.

Which element could be X?

- A** aluminium
B carbon
C germanium
D phosphorus

25 The elements oxygen and sulfur are in the same group of the Periodic Table.

Which statement about oxygen and sulfur is **not** correct?

- A** They are non-metals.
- B** They have giant covalent structures.
- C** They have six electrons in the outer electron shells of their atoms.
- D** They react together to form an acidic oxide.