

25 Part of the Periodic Table is shown.

Which element is an inert gas?

A 10x4 grid representing a map. The grid is divided into four quadrants by a vertical line between column 5 and 6, and a horizontal line between row 2 and 3. The top-left quadrant (rows 1-2, columns 1-5) contains a 2x2 grid of squares. The top-right quadrant (rows 1-2, columns 6-10) contains a 2x2 grid of squares. The bottom-left quadrant (rows 3-4, columns 1-5) contains a 2x2 grid of squares. The bottom-right quadrant (rows 3-4, columns 6-10) contains a 2x2 grid of squares. The letter 'A' is in the top-right square of the top-left quadrant. The letter 'B' is in the top-right square of the top-right quadrant. The letter 'C' is in the bottom-right square of the top-right quadrant. The letter 'D' is in the bottom-right square of the bottom-left quadrant.

24 Two statements about noble gases are listed.

- 1 Noble gases are reactive, monatomic gases.
- 2 Noble gases all have a full outer shell of electrons.

Which statements about noble gases are correct?

- A** Both statements are correct, and statement 2 explains statement 1.
- B** Both statements are correct but statement 2 does **not** explain statement 1.
- C** Statement 1 is correct but statement 2 is **not** correct.
- D** Statement 2 is correct but statement 1 is **not** correct.

21 The table shows some properties of noble gases.

noble gas	density in g/dm ³	boiling point in °C
helium	0.2	−269
neon	0.9	−246
argon	1.8	−186
krypton		
xenon	5.9	−108

Which row predicts the density and the boiling point of krypton?

	density in g/dm ³	boiling point in °C
A	1.4	−75
B	2.4	−195
C	3.8	−153
D	8.5	−213

23 Which statement about the elements in Group VIII is correct?

- A** They all form diatomic molecules.
- B** They all have eight electrons in their outer electron shells.
- C** They all react with oxygen to form oxides.
- D** They all are gases at room temperature.