

(Group 0 – Noble gases)

Q1. (2022)

The noble gases are in Group 0.

Which is a correct statement about the noble gases?

[1 mark]

Tick (✓) **one** box.

The noble gases all have atoms with eight electrons in the outer shell.

☐

The noble gases have boiling points that increase going down the group.

☐

The noble gases have molecules with two atoms.

☐

The noble gases react with metals to form ionic compounds.

☐

Q2. (2023)

This question is about elements in the periodic table.

Argon has the atomic number 18

Explain why argon does **not** form compounds.

Answer in terms of electrons.

[2 marks]

Q3. a). (2024)

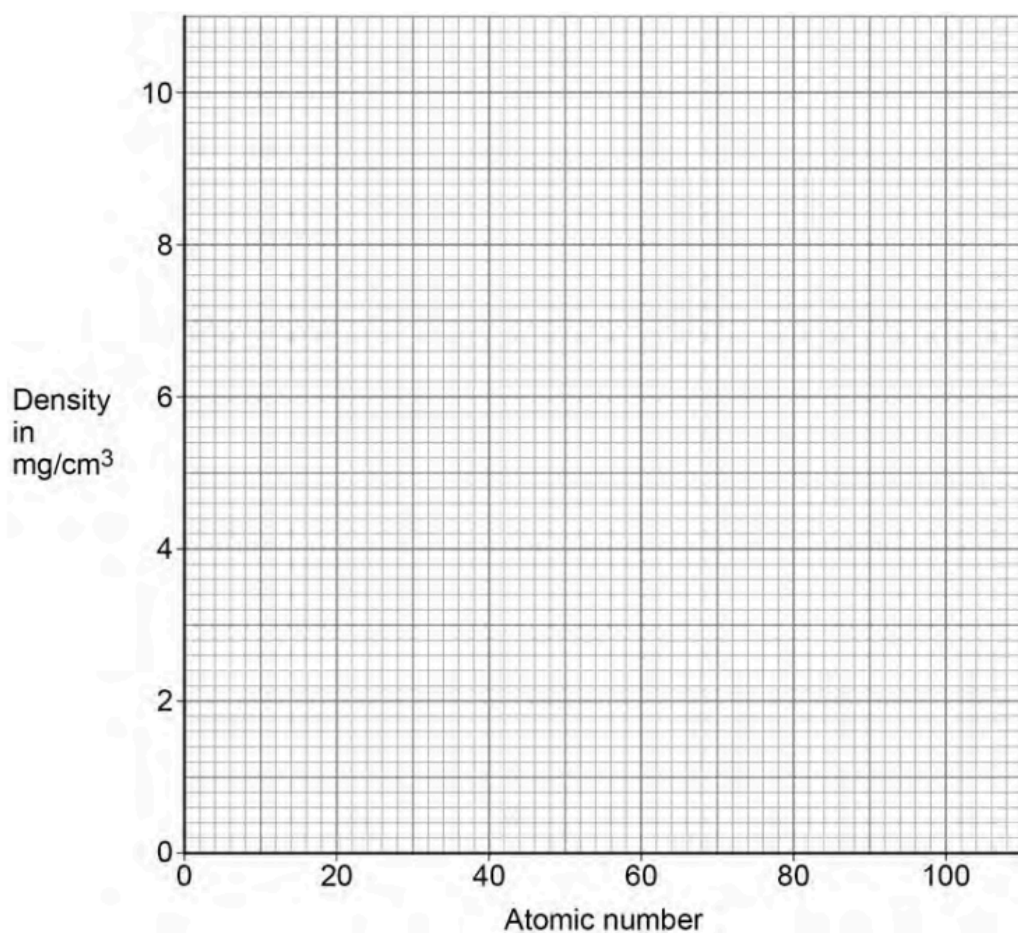
Table 1 shows the densities of some of the elements in Group 0 of the periodic table.

Table 1

Element	Atomic number	Density in mg/cm³
Helium	2	0.2
Neon	10	0.8
Argon	18	1.6
Krypton	36	X
Xenon	54	5.4
Radon	86	9.1

Plot the data from **Table 1** on **Figure 1**.

[2 marks]

Figure 1

Q3. b). (2024)

Estimate the density (**X**) of krypton.

Use **Figure 1** and **Table 1**.

[1 mark]

Density = _____ mg/cm³