

- 39 When a magnesium nucleus $^{25}_{12}\text{Mg}$ is hit by a gamma ray, a sodium nucleus $^{24}_{11}\text{Na}$ is formed and another particle is emitted.

What are the nucleon number (mass number) and proton number (atomic number) of the other particle produced in this nuclear reaction?

	nucleon number	proton number
A	0	−1
B	0	1
C	1	−1
D	1	1

- 40 Which nuclear equation shows the beta decay of a nucleus of argon (Ar) into potassium (K)?