

GCSE Physics B (Twenty First Century Science)
J259/03 Depth in physics (Higher Tier)

Question Set 18

- 1 Thorium-232 is radioactive. It decays to an isotope of radium.

The graph in **Fig. 5.1** shows how the number of neutrons and protons in the nucleus changes during this decay.

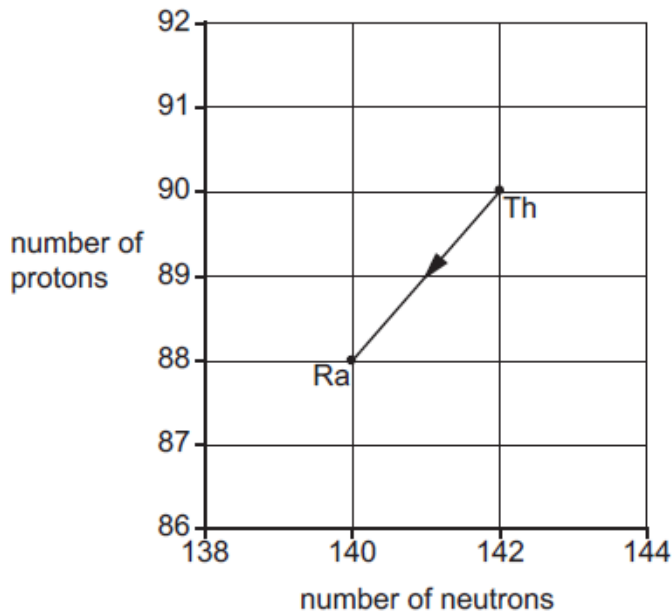
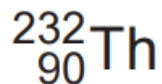


Fig. 5.1

- (a) Thorium-232 can be represented as:



Complete the correct representation of the isotope of radium shown in **Fig. 5.1**.



[2]

- (b) State the type of radiation emitted during the decay shown in **Fig. 5.1**.

Give a reason for your answer.

[2]

- (c) The isotope of radium is also radioactive. It decays by emitting a beta particle.

Add an arrow to the graph in **Fig. 5.1** to show this decay.

[1]

Total Marks for Question Set 18: 5

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