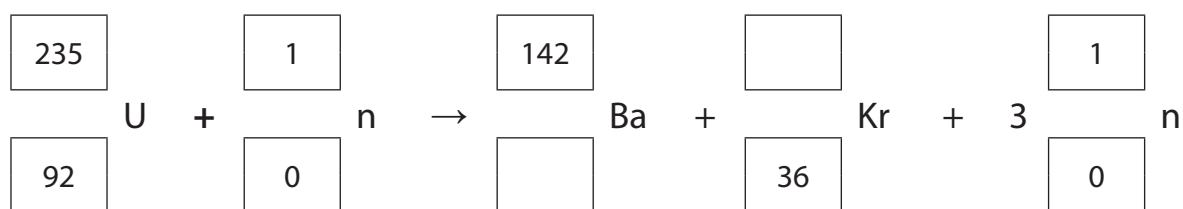


11 In a nuclear reactor, a uranium-235 nucleus absorbs a neutron and fission occurs.

(a) Complete the equation below that shows a typical fission reaction.

(2)



(b) Explain how nuclear fission can lead to a chain reaction.

(3)

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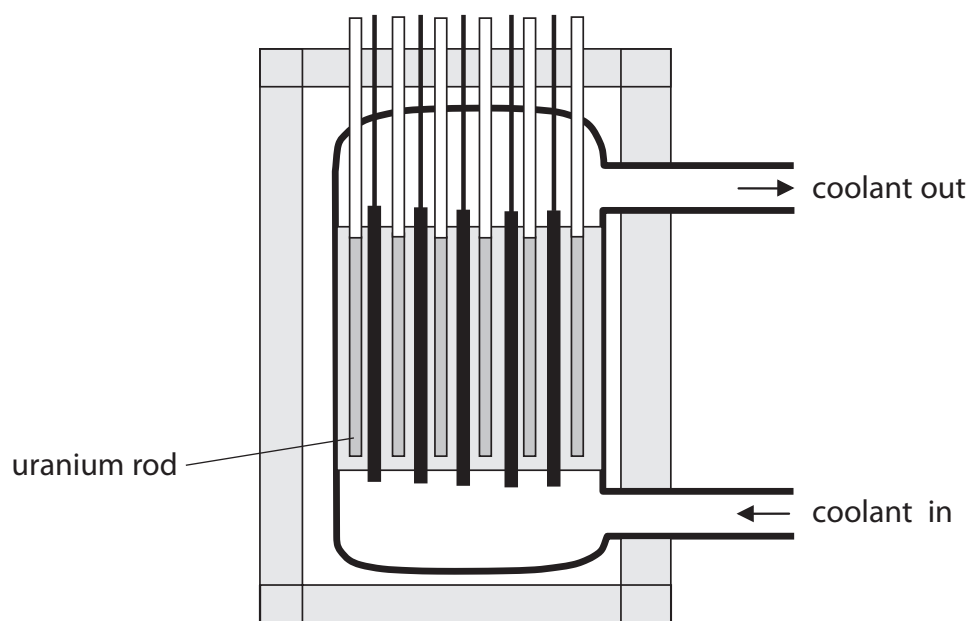
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(c) The diagram shows a nuclear reactor.



(i) On the diagram, label the control rods and the shielding.

(2)

(ii) Explain why the shielding is needed.

(2)

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(Total for Question 11 = 9 marks)

