

3 (a) State what is meant by the term **magnetic field line**.

(1)

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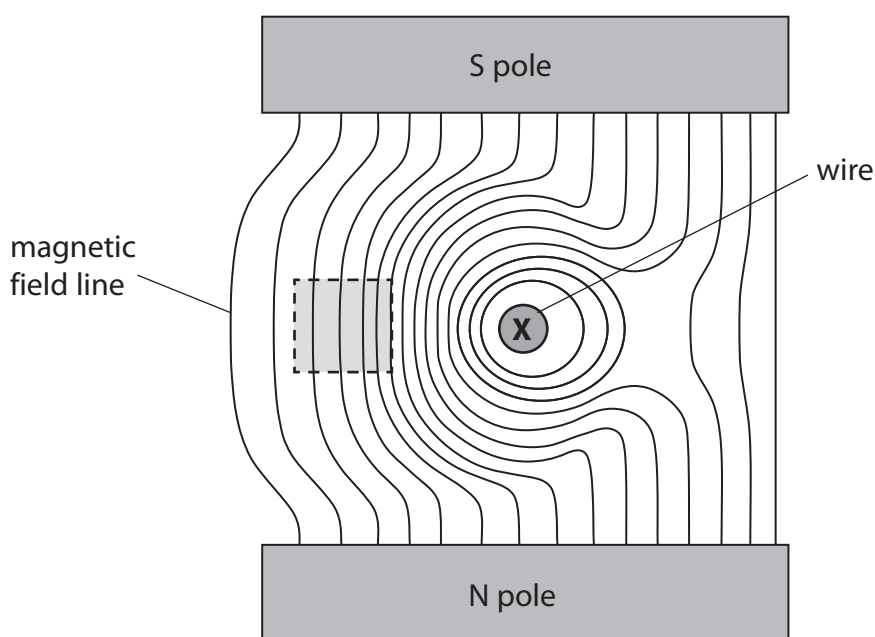


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(b) The diagram shows a cross-section through a wire placed between two magnetic poles.

The wire carries electric current into the page at **X**.

The shape of the magnetic field is shown.



(i) Add arrows to any **two** lines to show the direction of the magnetic field.

(1)

(ii) Draw an arrow on the diagram to show the direction of the force on the wire.

Label this arrow **F**.

(2)

(c) Describe the magnetic field in the region inside the dotted square.

(2)

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(Total for Question 3 = 6 marks)

