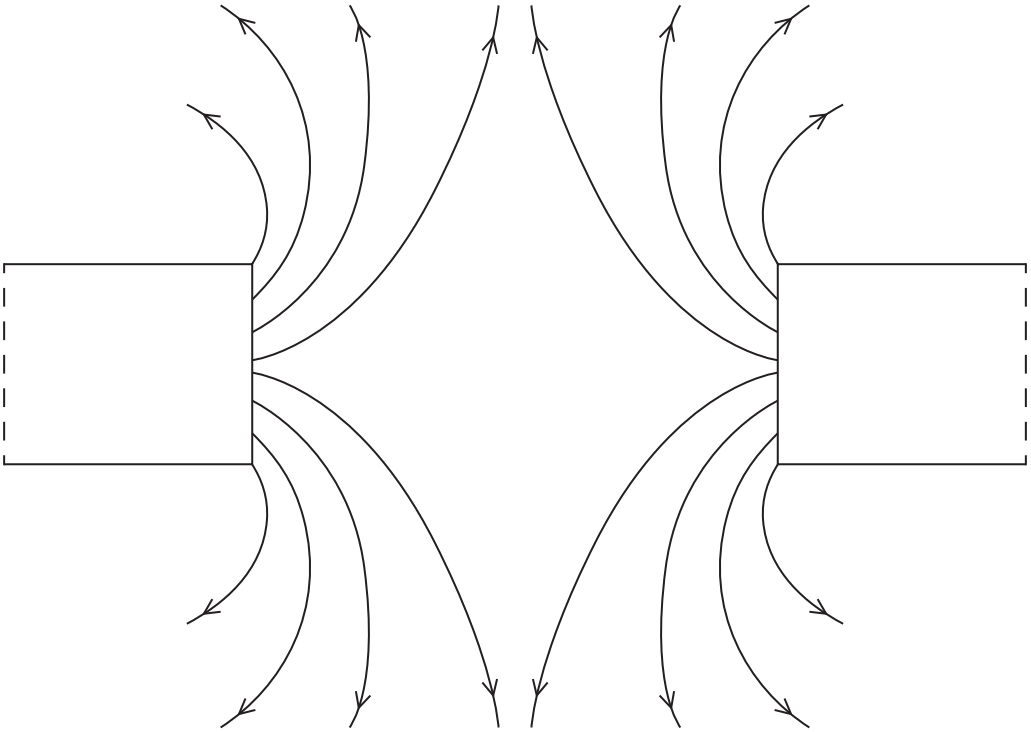
3 The diagram shows the magnetic field between the poles of two bar magnets.

Only one end of each bar magnet is shown.



(a) Complete the diagram by labelling the poles on the bar magnets.

(2)

(b) A student investigates the magnetic field between the poles of the two bar magnets.

Describe an experiment that he could do to determine the shape and direction of this magnetic field.

You may draw a diagram to help your answer.

(3)

(Total for Question 3 = 5 marks)

4 This question is about pressure and density.

(a) Photograph A shows a pile of identical metal squares on a table.

Photograph A

There are 6 metal squares in the pile.

The weight of each metal square is 0.072 N.

The pressure exerted on the table by the pile of metal squares is 820 Pa.

(i) State the equation linking pressure, force and area.

(1)

(ii) Calculate the area of the table in contact with the metal squares.

(3)

area = ... m^2