

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 = m²

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA



(b) Photograph B shows the 6 metal squares spread out on the table.



Photograph B

- (i) Explain how spreading out the metal squares affects the pressure they exert on the table. (2)

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- (ii) Explain whether spreading out the metal squares affects the density of the material they are made from. (2)

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(Total for Question 4 = 8 marks)

