

- 13 Two brackets, A and B, support a shelf of length 1.2 m. Bracket A is positioned 0.15 m from the left-hand end of the shelf. A book is placed 0.35 m from the left-hand end of the shelf as shown.



- (a) The normal contact forces of each bracket on the shelf are equal.

Determine the distance of bracket B from the left-hand end of the shelf.

weight of book = 8.5 N

weight of shelf = 14 N

(5)

Distance = .....



(b) Bracket B is moved closer to the left-hand end of the shelf.

Explain the effect on the magnitude of the normal contact force of bracket B on the shelf.

(2)

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(Total for Question 13 = 7 marks)

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