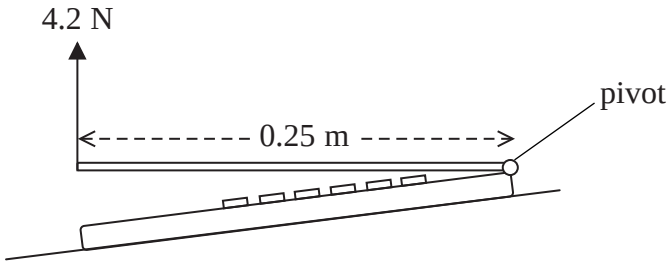
5 The diagram shows the side view of a laptop computer.



A student opens the computer with an upward force of 4.2 N.

The force is applied 0.25 m from the pivot.

(a) (i) State the equation linking moment, force and distance.

(1)

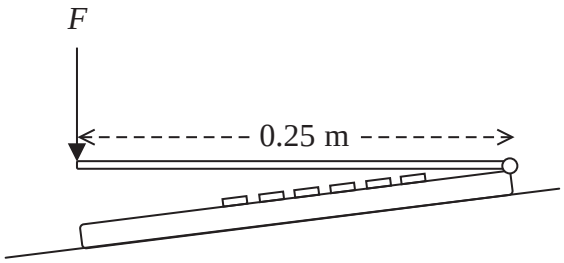
(ii) Calculate the moment of the force that opens the computer.

(2)

Moment = ... N m

(b) The student finds that 4.2 N is the **minimum** upward force needed to open the computer.

Then the student applies a downward force, *F*, to close the computer.



Explain why the minimum force needed to close the computer is likely to be **less** than 4.2 N.

(2)

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(Total for Question 5 = 5 marks)