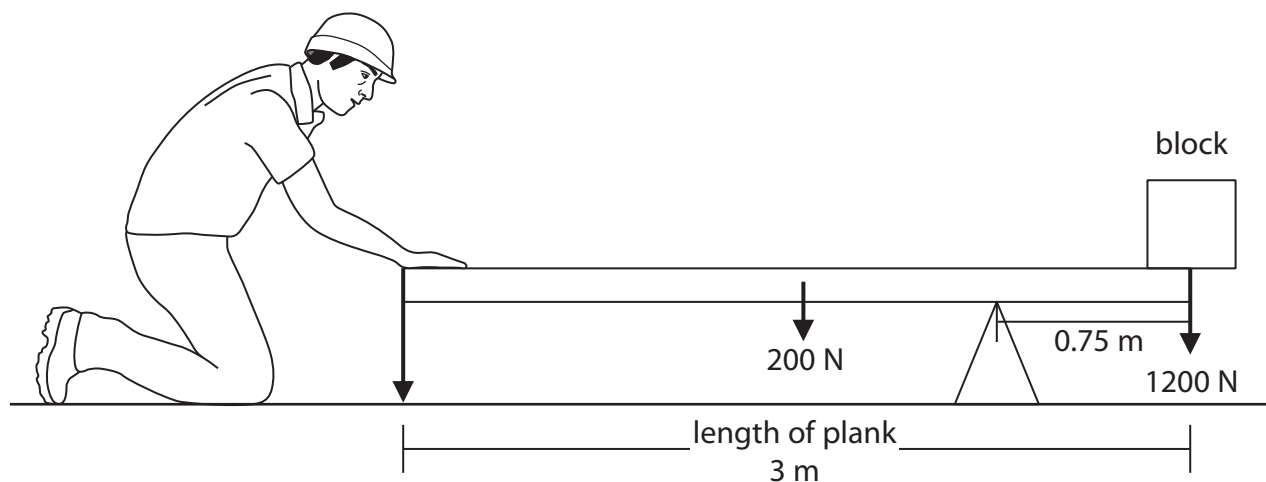


8 A man uses a uniform plank to lift a block.

He holds the plank horizontal.



The arrows on the diagram represent three forces on the plank.

(a) Complete the table to identify the missing force.

(1)

Force	Name of force
F	force of man pushing down on the plank
1200 N	weight of block
200 N	

(b) (i) State the equation linking moment, force and perpendicular distance from the pivot.

(1)



(ii) Calculate the clockwise moment of the block about the pivot.

(2)

moment = ..... Nm

(c) Calculate the force of the man pushing down on the plank.

(4)

force = ..... N

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**(Total for Question 8 = 8 marks)**

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**TOTAL FOR PAPER = 60 MARKS**



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