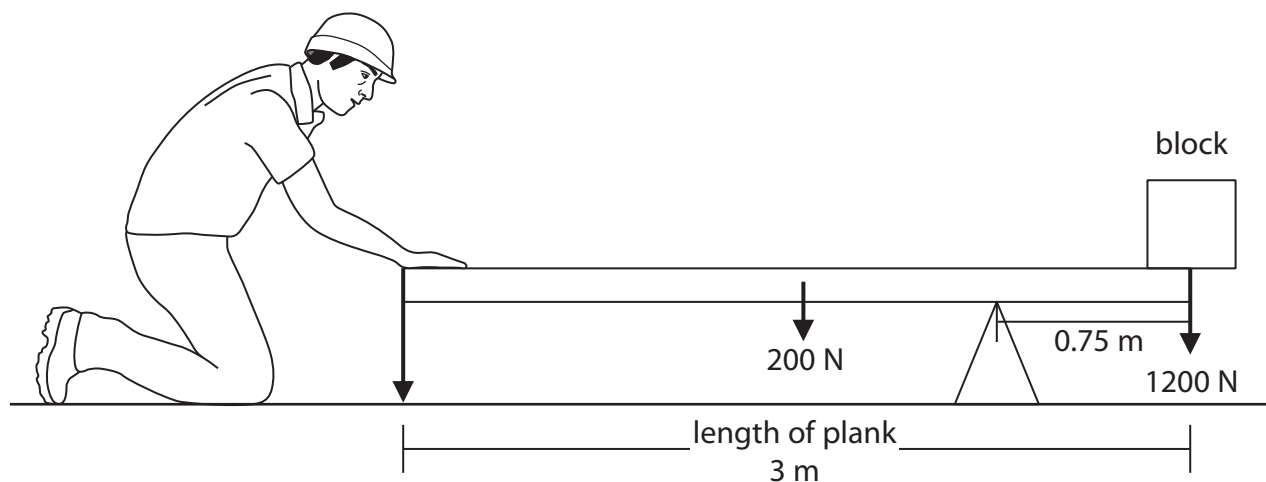**8** A man uses a uniform plank to lift a block.

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

(Total for Question 8 = 8 marks)

TOTAL FOR PAPER = 60 MARKS