

- 8 (a) A man stands on a wooden board to paint a wall, as shown in diagram 1.

The diagram shows some of the forces acting.

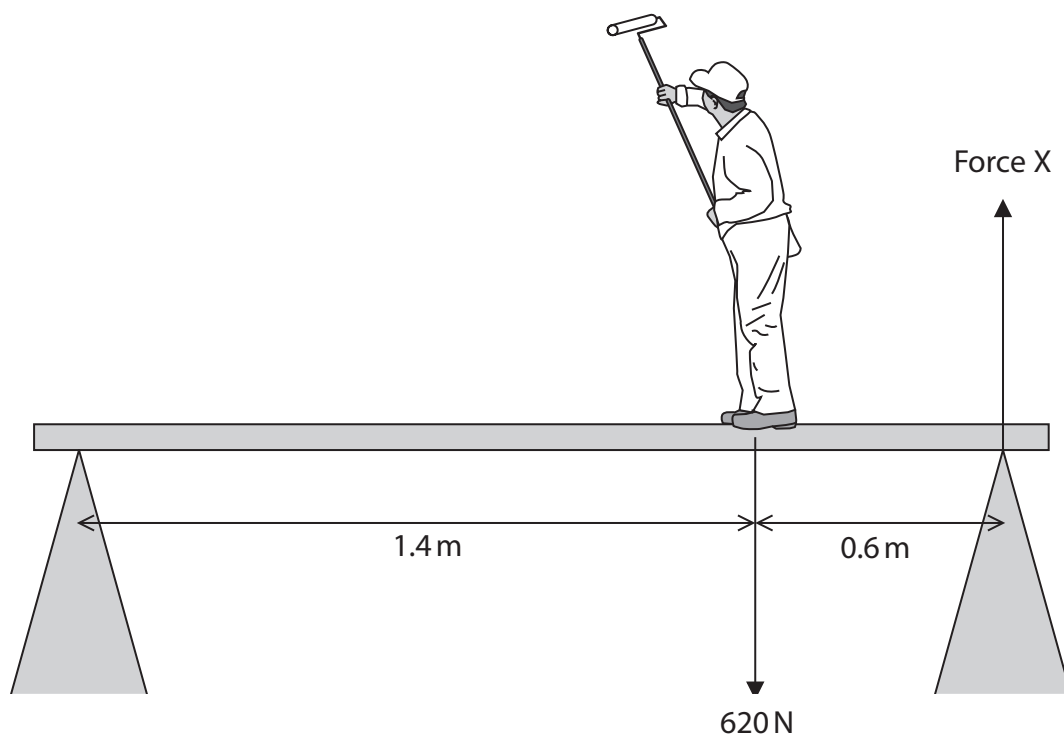


Diagram 1

- (i) State the principle of moments.

(1)

- (ii) Calculate force X.
[ignore the weight of the wooden board]

(4)

force X = N

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(b) The man walks to the other end of the wooden board, as shown in diagram 2.

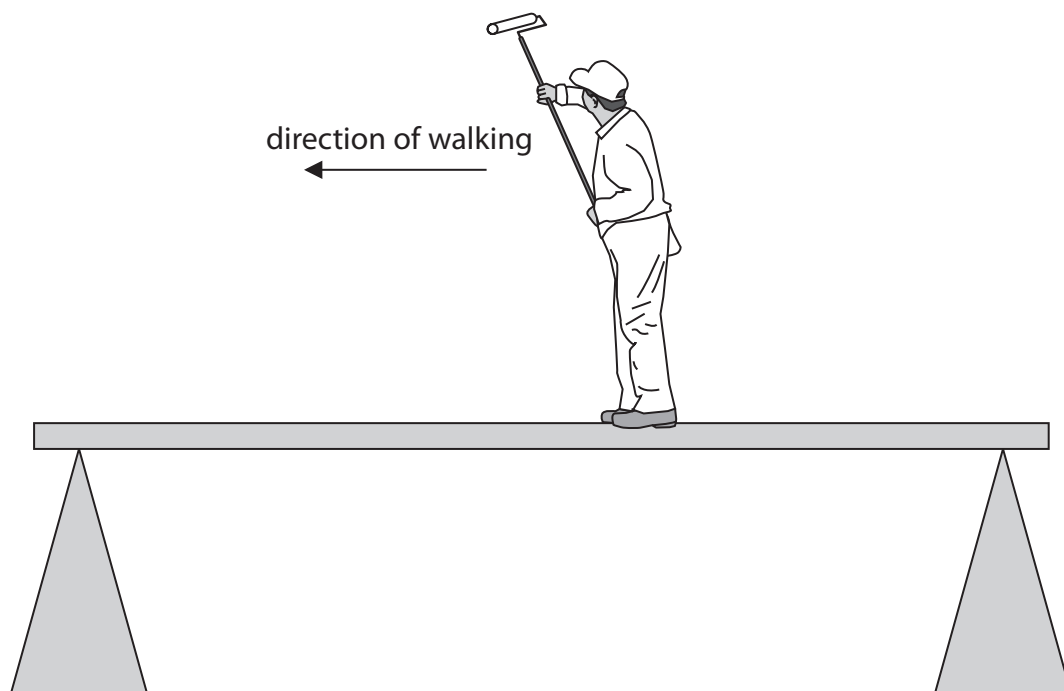


Diagram 2

Explain the change in force X as the man walks along the wooden board.

(3)

(Total for Question 8 = 8 marks)

TOTAL FOR PAPER = 60 MARKS

