

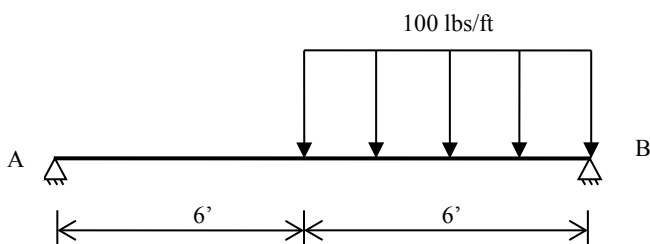
TOPIC

Engineering Mechanics (Statics and Dynamics) – Section VII – Question 8

QUESTION

For the beam shown, the vertical component of the reaction at A in lbs most nearly is

- (A) 150
- (B) 1800
- (C) 2700
- (D) Statically indeterminate (cannot find the vertical components of A).

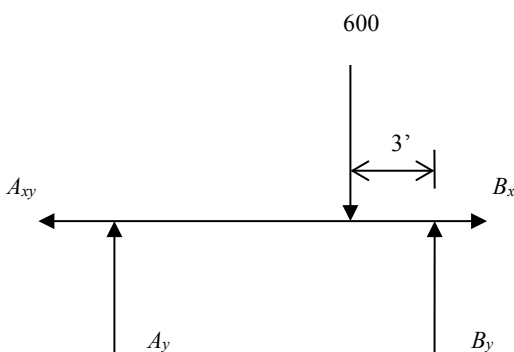


HINT

Although the beam is statically indeterminate, one can still find some, if not all of the support reactions.

SOLUTION

Although the beam is statically indeterminate one can still find some but not all of the support reactions.



$$\begin{aligned} +\curvearrowleft \sum M_B &= 0 \\ 12A_y - 600(3) &= 0 \\ A_y &= \frac{1800}{12} \\ &= 150 \text{ lbs} \end{aligned}$$

ANSWER

(A)

CONTRIBUTOR

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