

3 (a) State the principle of moments.

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.....
..... [2]

(b) A uniform rod of weight 1000 N rests at angle of 30° to the ground. It is in equilibrium when supported by tension T which acts 47° from the horizontal, as shown in Fig. 3.1.

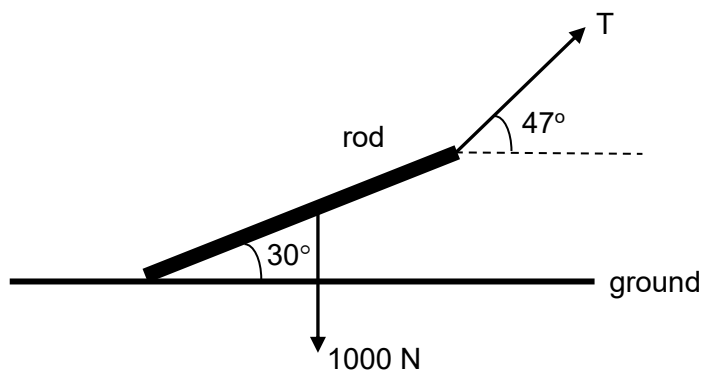


Fig. 3.1

Calculate the tension T .

$T =$ N [3]

[Total: 5]