

#Jenny



Finally I get this ebook, thanks for all these I can get now!

#Rio



Cool! I'am really happy

#Markus Jensen



I did not think that this would work, my best friend showed me this website, and it does! I get my most wanted eBook

#Hun Tsu



wtf this great ebook for free?!

#Che Salsa



My friends are so mad that they do not know how I have all the high quality ebook which they do not!

#Diego Butler



so many fake sites. this is the first one which worked! Many thanks

PHYSICS X NOTES EQUILIBRIUM - SOLVED NUMERICAL

PROBLEM No. 6.6:
A painter weighing 150 N is standing on a uniform plank 10 m long at a distance 2m from one end of the plank. The weight of the plank is 50 N and it is supported by two ropes at the ends as shown in figure. Find the tension in the ropes.

SOLUTION:
Given Data:
Weight of the painter $W = 150\text{ N}$
Length of plank $l = 10\text{ m}$
The distance between painter and point A = 2m.
Weight of the plank $W = 50\text{ N}$

Required Data:
Tension in the rope $T_1 = ?$
 $T_2 = ?$

Formula:
The plank is in equilibrium take the force of gravity at the center of the plank. No forces acting along x-axis

$$\sum F_x = 0$$
$$\sum F_y = 0$$
$$T_1 + T_2 - 50 - 150 = 0$$
$$T_1 + T_2 - 200 = 0$$
$$T_1 + T_2 = 200 \quad \text{--- (i)}$$
$$\sum \tau = 0$$
$$T_1 \times 5 + 150 \times 3 - T_2 \times 5 = 0$$
$$5T_1 + 450 - 5T_2 = 0$$

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