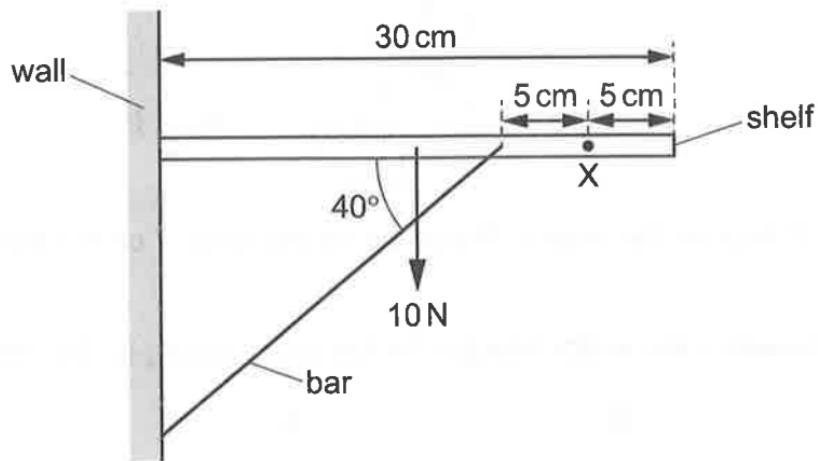


10 A uniform shelf of width 30 cm and weight 10 N is attached to a vertical wall.

It is kept horizontally in equilibrium by a rigid bar that is attached to the shelf 10 cm from its end and inclined at 40° , as shown.



A load is placed at point X which is 5 cm from the end of the shelf.

The compression force in the bar is 50 N.

What is the weight of the load?

A 20 N

B 22 N

C 25 N

D 28 N

11 An object of mass m at a height h above the ground has a total energy E equal to mgh . It falls