

12 A thin plank of non-uniform density and length 6.0 m has ends X and Y.

The plank lies on horizontal ground.

A vertical force of 12 N acting at X is required to lift end X off the ground.

A vertical force of 15 N acting at Y is required to lift end Y off the ground.

How far is the centre of gravity of the plank from end X?

A 2.7 m

B 3.0 m

C 3.3 m

D 4.5 m

13 A metal wire is stretched by a varying force F , causing its extension x to increase as shown by