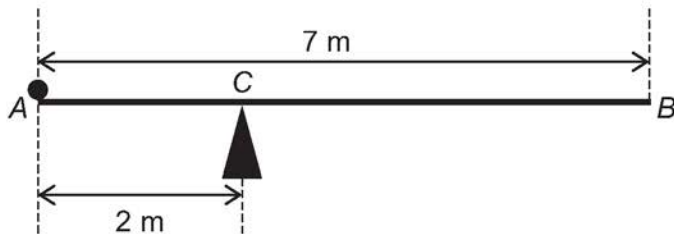


13

A uniform rod,  $AB$ , has length 7 metres and mass 4 kilograms.

The rod rests on a single fixed pivot point,  $C$ , where  $AC = 2$  metres.

A particle of weight  $W$  newtons is fixed at  $A$ , as shown in the diagram.



The system is in equilibrium with the rod resting horizontally.

13 (a)

Find  $W$ , giving your answer in terms of  $g$ .

[2 marks]

13 (b)

Explain how you have used the fact that the rod is uniform in part (a).

[1 mark]