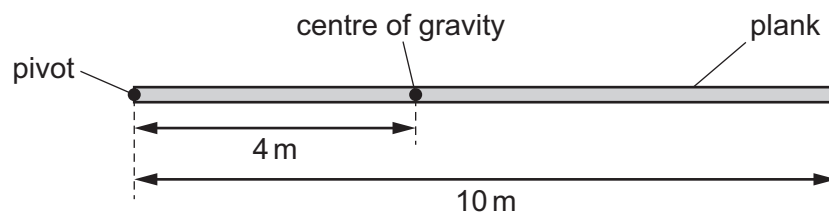


- 11 A horizontal wooden plank is pivoted at one end, as shown.



The plank has a mass of 100 kg and a length of 10 m. The centre of gravity of the plank is a distance of 4 m from the pivot.

What is the moment of the weight of the plank about the pivot?

- A**  $4 \times 10^2 \text{ Nm}$     **B**  $5 \times 10^2 \text{ Nm}$     **C**  $4 \times 10^3 \text{ Nm}$     **D**  $5 \times 10^3 \text{ Nm}$
- 12 When **must** an object be in equilibrium?

- A** when no resultant force acts on the object  
**B** when no resultant force and no resultant torque act on the object  
**C** when no resultant torque acts on the object  
**D** when the upward force on the object is equal and opposite to its weight