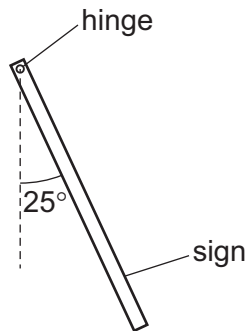


- 13** A sign outside a shop is suspended from a rusty horizontal hinge at its top end. The sign hangs in equilibrium at an angle of 25° to the vertical, as shown.



The sign is a square of side length 52 cm and uniform thickness. It has a mass of 36 kg.

What is the moment of the weight of the sign about the hinge?

- A** 39 Nm **B** 78 Nm **C** 83 Nm **D** 92 Nm