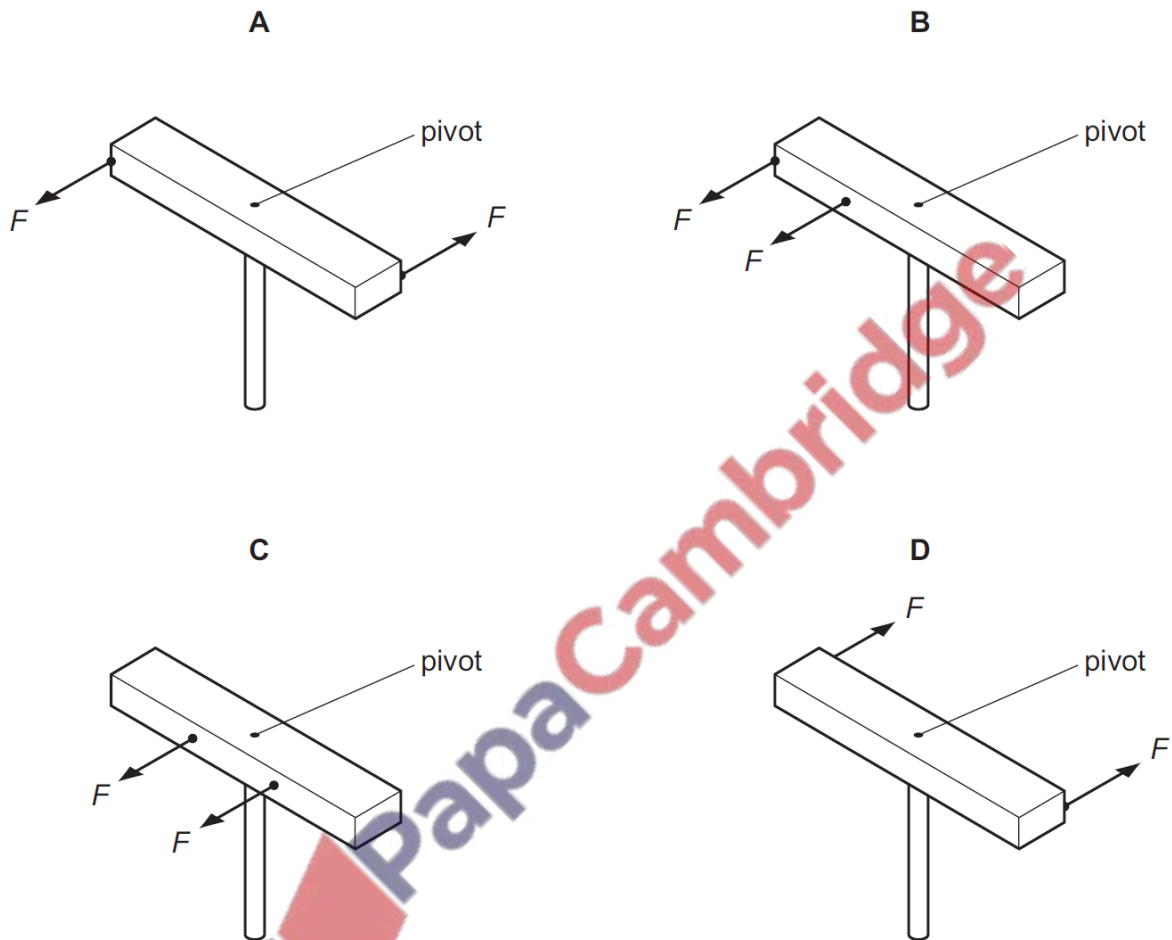


Turning Effect of Force – 2019 June

1. 0625/11\$12\$13/M/J/19/No.9

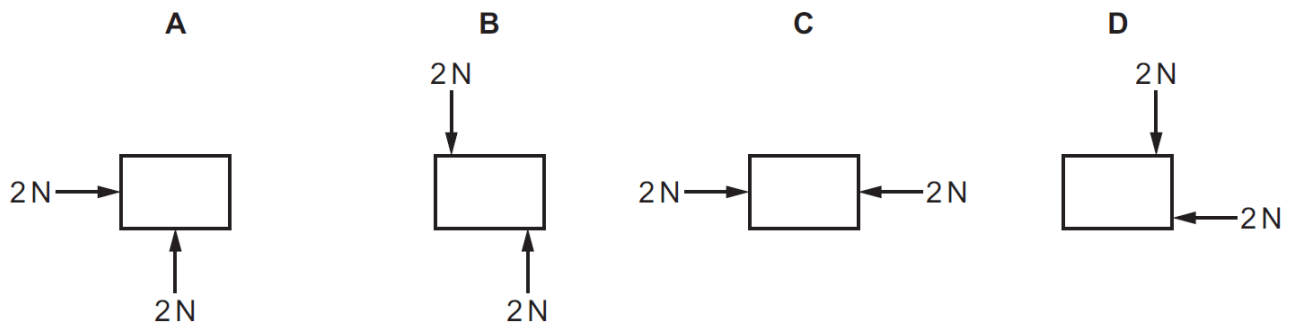
A wooden bar is pivoted at its centre so that it can rotate freely. Two equal forces F are applied to the bar.

In which diagram is the turning effect greatest?



2. 0625/12,22/M/J/19/No.7,8

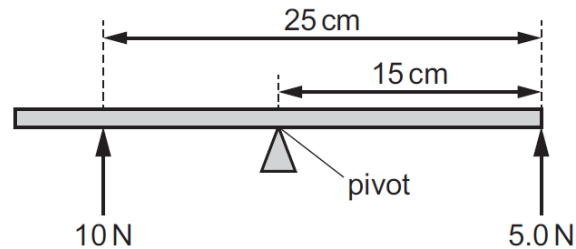
Which object is in equilibrium?



3. 0625/22/M/J/19/No.7

A beam is pivoted at its centre of mass.

It is acted upon by two forces, 10 N and 5.0 N, as shown.



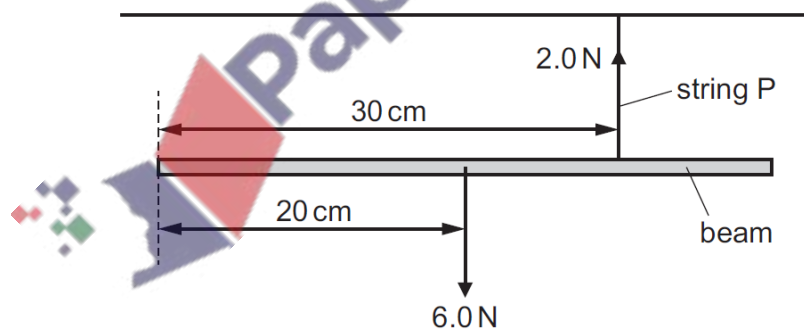
What is the resultant moment about the pivot?

- A 25 N cm anticlockwise
- B 25 N cm clockwise
- C 175 N cm anticlockwise
- D 175 N cm clockwise

4. 0625/23/M/J/19/No.8

A beam of weight 6.0 N is suspended from two strings P and Q.

String P is 30 cm from the left-hand end of the beam, as shown. String Q is not shown.



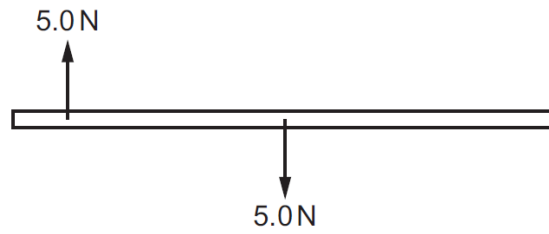
The tension in string P is 2.0 N.

What is the tension in string Q and where is it attached so that the beam is in equilibrium?

- A 4.0 N at 10.0 cm from the left-hand end
- B 4.0 N at 15.0 cm from the left-hand end
- C 6.0 N at 10.0 cm from the left-hand end
- D 8.0 N at 7.5 cm from the left-hand end

5. 0625/12/F/M/19/No.9

The diagram shows a wooden beam with two forces acting on it.



Which way will the beam move?

- A accelerate up the page
- B accelerate down the page
- C turn anticlockwise
- D turn clockwise

