Turning Effect – 2019 Nov

1. 0625/11/O/N/19/No.7

Which statement gives a complete description of any object that is in equilibrium?

A There are no forces acting.

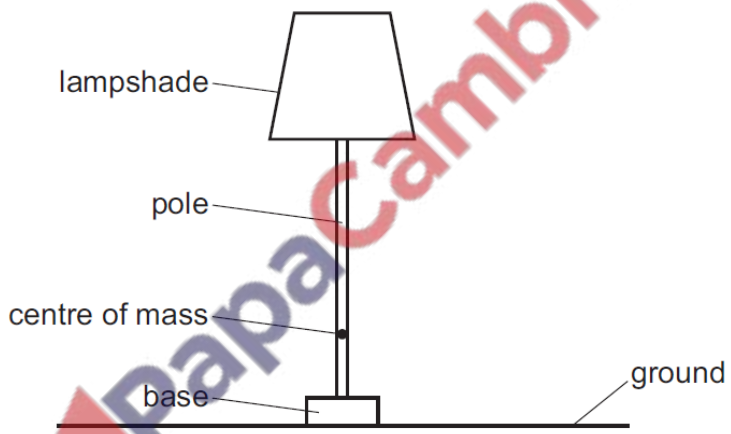
B There is no resultant force.

C There is no resultant force and no resultant turning effect.

D There is no resultant turning effect.

2. 0625/11/O/N/19/No.8

The diagram shows a lamp.



Changing which feature increases the stability of the lamp?

A a larger lampshade

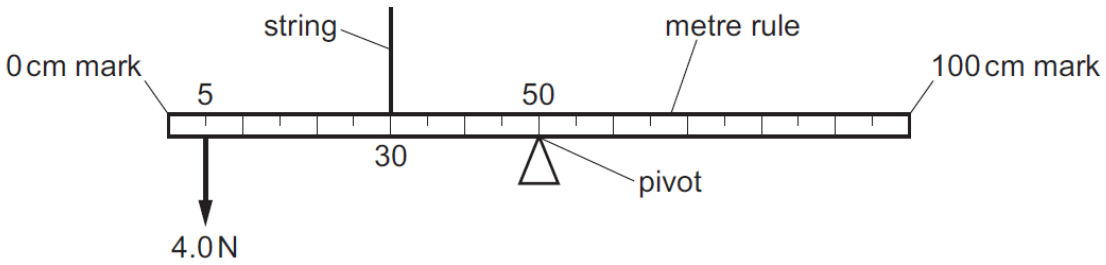
B a longer pole

C a heavier base

D a higher centre of mass

3. 0625/13,23/O/N/19/No.7

The diagram shows a uniform metre rule. The rule is pivoted at its mid-point. A downward force of 4.0 N acts on the rule at the 5 cm mark. The rule is held by a string at the 30 cm mark. The rule is in equilibrium.

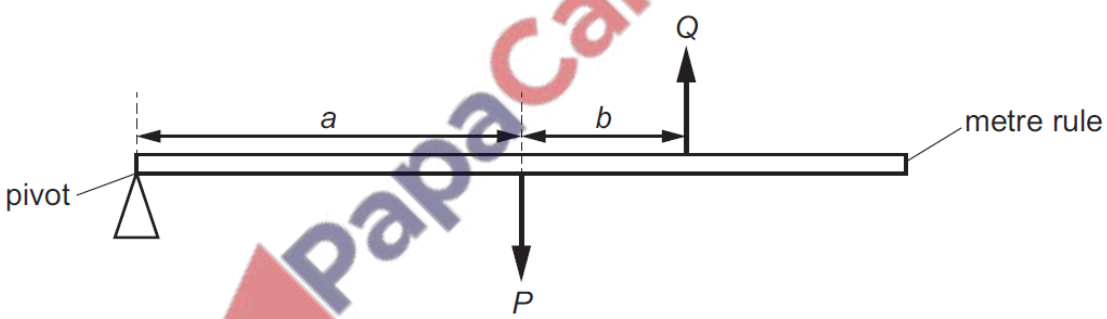


What is the upward force that the string exerts on the rule?

A 0.67 N **B** 4.0 N **C** 6.0 N **D** 9.0 N

4. 0625/21/O/N/19/No.7

Two forces *P* and *Q* act on a metre rule as shown. The metre rule is pivoted at one end. The rule starts to rotate in a clockwise direction.



Which statement is correct?

A *P* equals *Q*

B *P* is less than *Q*

C $(P \times a)$ is equal to $(Q \times b)$

D $(P \times a)$ is greater than $(Q \times (a + b))$

5. 0625/21/O/N/19/No.8

Which statement gives a complete description of any object that is in equilibrium?

A There are no forces acting.

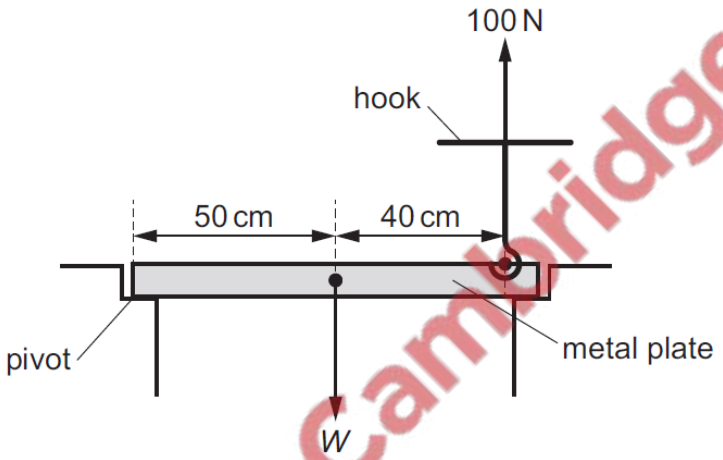
B There is no resultant force.

C There is no resultant force and no resultant turning effect.

D There is no resultant turning effect.

6. 0625/22/O/N/19/No.6

A hook is used to lift a metal plate, as shown.



An upward force of 100 N is needed to lift the metal plate about the pivot, as shown.

What is the weight *W* of the metal plate?

A 80 N **B** 100 N **C** 180 N **D** 225 N

7. 0625/22/O/N/19/No.7

What is the unit of the moment of a force?

A N **B** N/kg **C** N/m **D** Nm