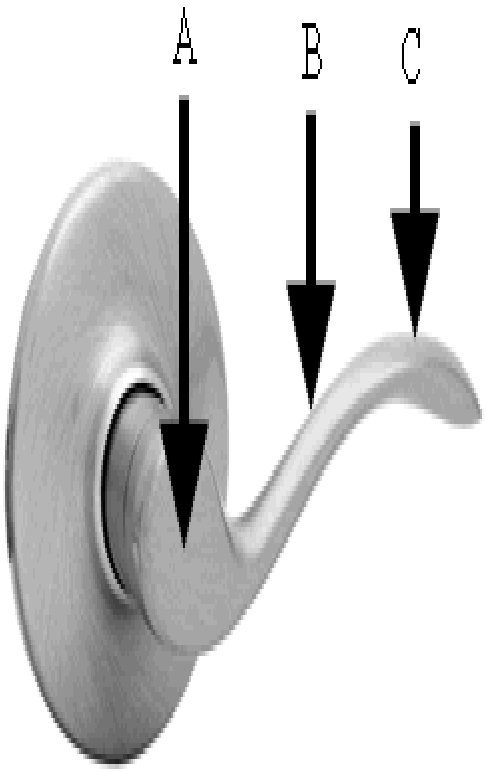
Turning effects of levers – exam questions

2011 - Higher

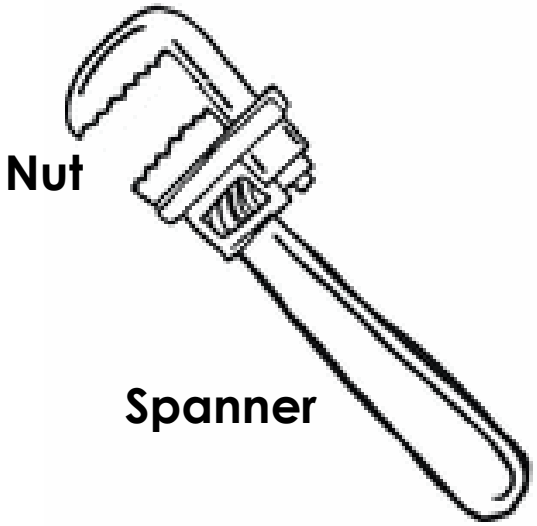
- The door handle is an application of a lever. The labels and arrows show three points. Which of the points **A**, **B** or **C** represent



- The fulcrum (turning point)
- The point where the smallest force will open the door lock

2011 - Ordinary

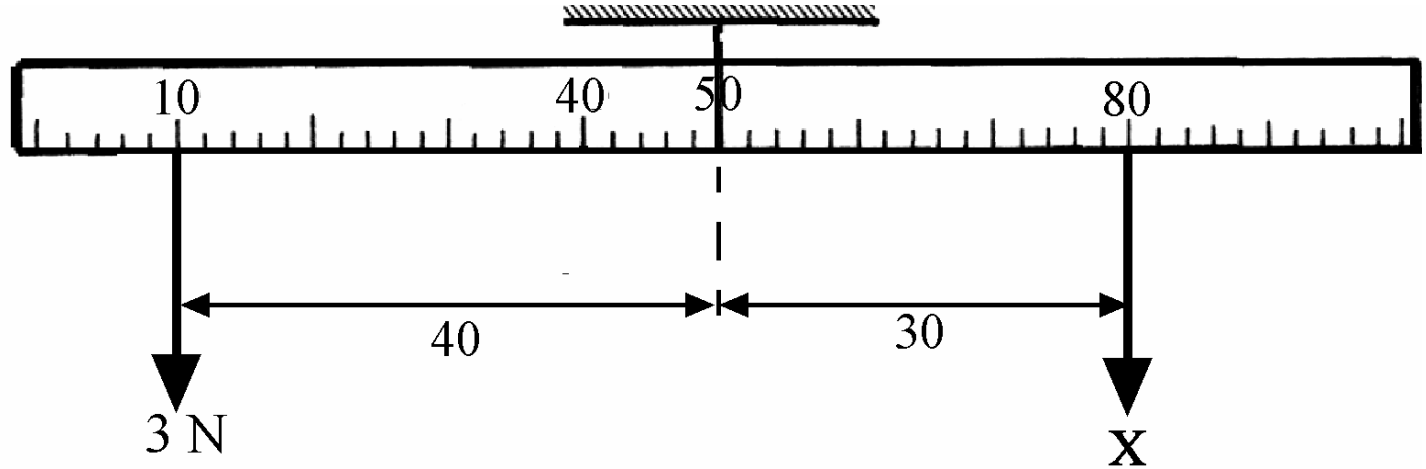
- The further away from the fulcrum (turning point) you apply a _____ the easier it is to turn a nut.



- The use of a spanner to turn a nut is an everyday example of using a _____.

Lever
Force
Friction

2010 - Higher



- A uniform meter stick, suspended at its mid-point is balanced as shown.
- Calculate force X.

2010 - Ordinary

- Which of the following items **does not involve** a lever? Give a reason for your answer.

stapler

wheelbarrow

traffic cone

scissors

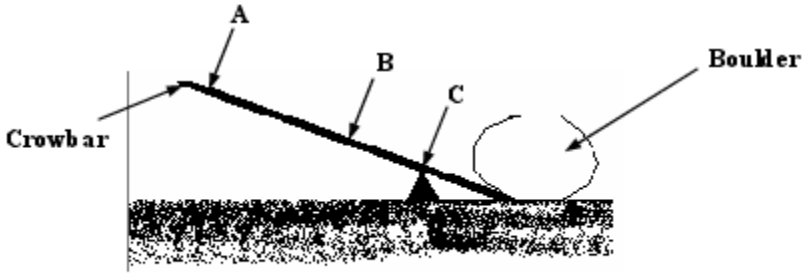
2008 - Higher

- State the ***law of the lever***.

2008 - Ordinary

(*b*) The crowbar in the diagram acts as a lever and applies a turning force on the boulder (large rock).

Answer the questions which follow with reference to the points **A**, **B** and **C** in the diagram. (12)



(*i*) Which of the three points, **A**, **B** or **C**, is the fulcrum (the point about which the turning force acts)? _____

(*ii*) At which of the three points, **A**, **B** or **C**, will the least force be needed to move the boulder? _____

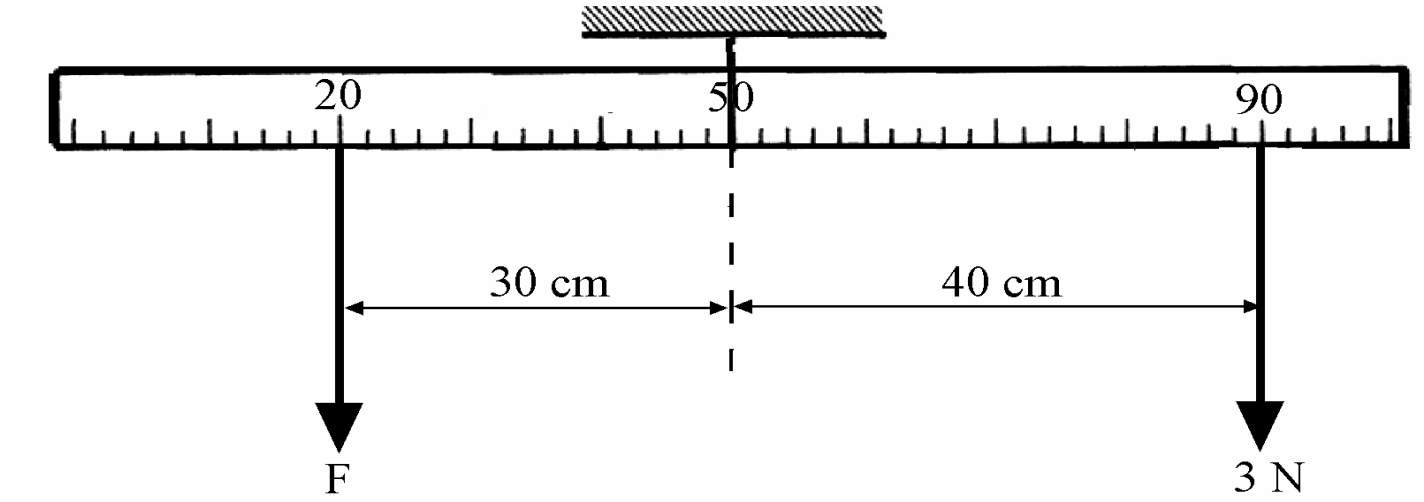
Give a reason for your answer.

_____

_____

2007 - Higher

- Define ***moment of a force***.



- The diagram shows a meter stick suspended from its center of gravity. A force of 3 N acts on the stick at the 90 cm mark and a force of F N acts on the stick at the 20 cm mark. The meter stick is balanced horizontally. Calculate force F.

- Give an ***everyday example of an application of the lever***, using a labelled diagram, showing the ***fulcrum*** and at least ***one force*** acting on the lever.