A Level Mathematics

Chapter 4 - Mechanics

Moments

Chapter Overview

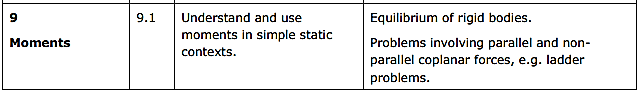
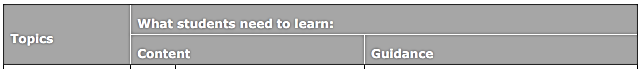
1. Moments

2. Resultant Moments

3. Equilibrium

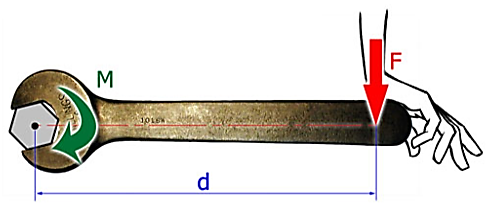
4. Centres of Mass

5. Tilting



1. **Moments**

The moment of a force is the **turning effect** of the force on the body on which it is acting.



The moment is dependent on:

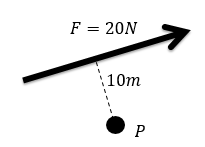
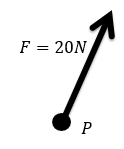
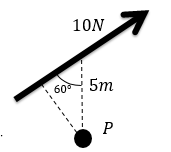
* The **magnitude** of the force
* The **distance** of the force from the axis of rotation

Moment of force =

You must also give the **direction** of the force.

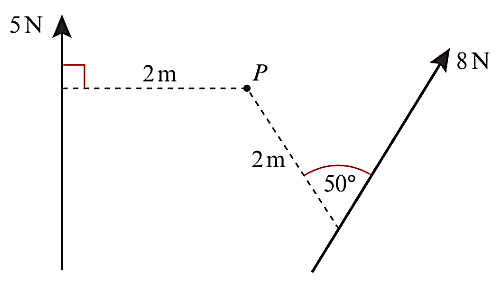
**Example**

In each diagram, find the moment of the force, F, about the point P.

**Test Your Understanding** *(Textbook))*

The diagram shows two forces acting on a lamina. Find the moment of each of the forces about P.



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