Chapter 4 - Mechanics

Moments

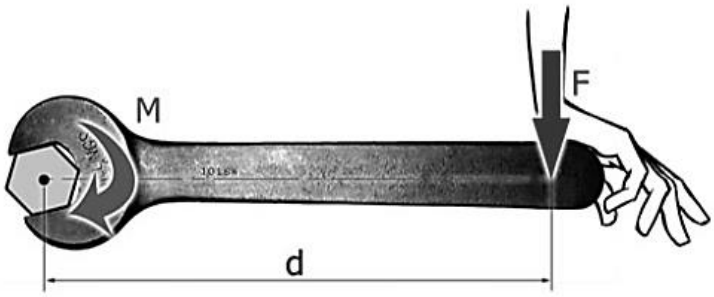
Chapter Overview

1. Moments
2. Resultant Moments
3. Equilibrium
4. Centres of Mass
5. Tilting

Topics	What students need to learn:		
	Content		Guidance
9 **Moments**	9.1	Understand and use moments in simple static contexts.	Equilibrium of rigid bodies. Problems involving parallel and non-parallel coplanar forces, e.g. ladder problems.

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:

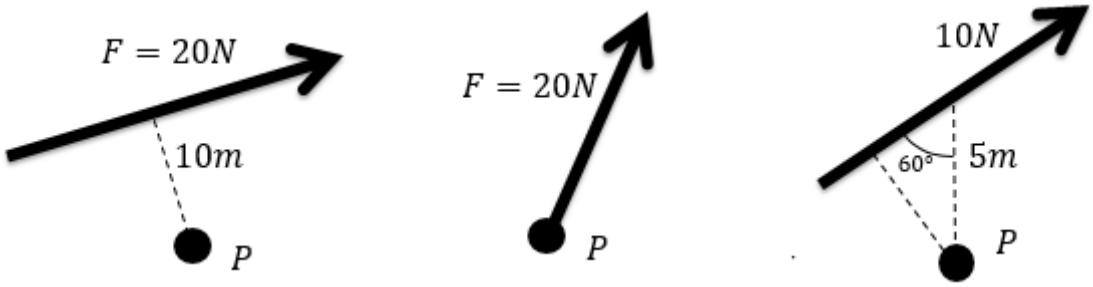
- The **magnitude** of the force
- The **distance** of the force from the axis of rotation

Moment of force =

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

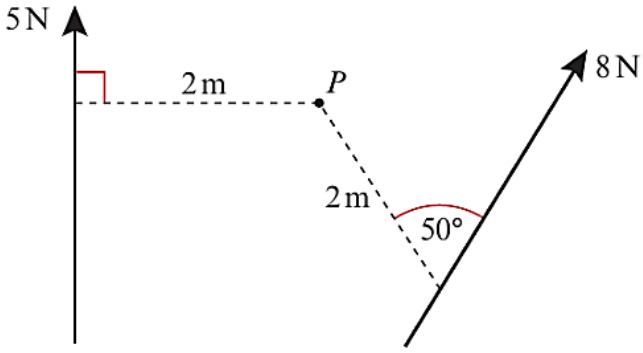
Example

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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