

# Irish Applied Mathematics Teachers' Association

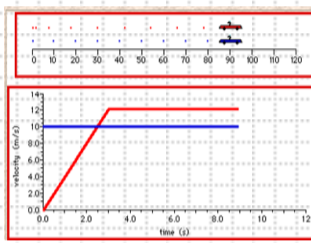
Cumann Múinteoirí Matamaitice Feidhmí na hÉireann

## APPLIED MATHEMATICS FOR LEAVING CERTIFICATE

### COURSE CONTENT

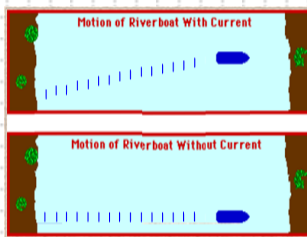
#### Kinematics

Kinematics describes the motion of objects without considering the forces that caused the motion.



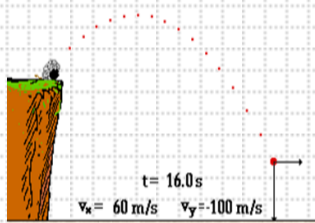
#### Relative Velocity

Relative velocity is a measurement of velocity between two objects moving in different frames of reference.



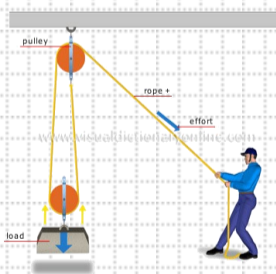
#### Ballistics

Ballistics is the study of Projectiles. "The wounding potential of projectiles is a complex matter". (Fackler, 1996)



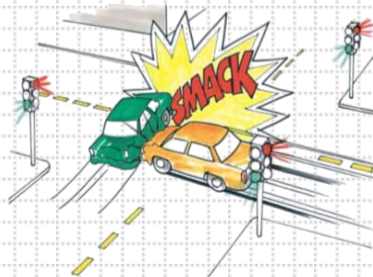
#### Pulleys and Wedges

A pulley is an example of a simple machine and are used and designed in order to reduce the amount of force needed to lift a load.



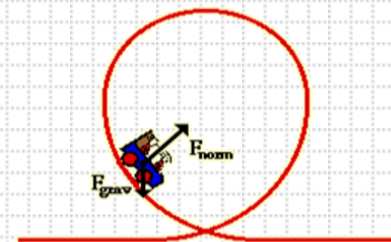
#### Momentum and Collisions

The outcome of a collision between bodies depends on the mass of each object and the direction and speed they were travelling just before the collision.



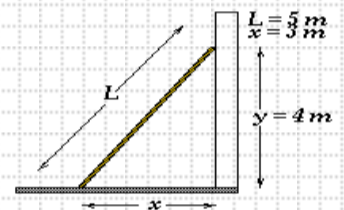
#### Circular Motion and SHM

Circular Motion is the study of forces on bodies travelling in a circular path.



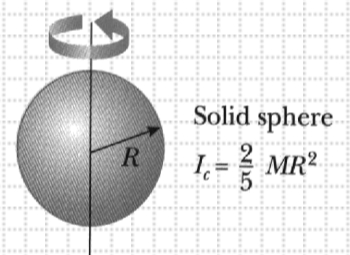
#### Statics

Statics is the study of forces and moments on systems in equilibrium.



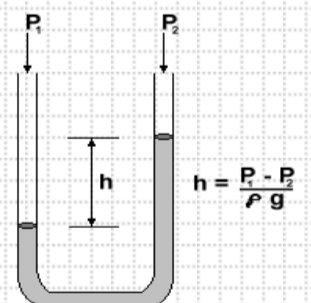
#### Moments of inertia

The moment of inertia of an object describes how difficult it is to change its angular motion about an axis.



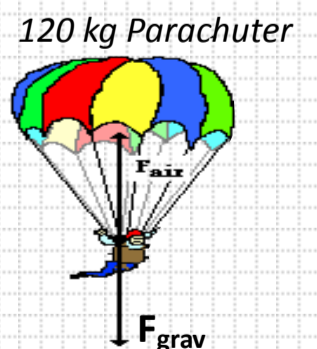
#### Hydrostatics

Hydrostatics is the study of liquids and gases at rest.



#### Differential Equations

Differential Equations are the language in which the laws of nature are expressed.



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