

Sin fricción

W = mg

Fx = F cos θ

Fy = F sen θ

Σ Fx = Fx

η= W - Fy

W = mg

Σ Fx = Fx

η = W

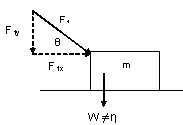
W = mg

Fx = F cos θ

Fy = F sen θ

Σ Fx = Fx

η = W + Fy



Con fricción

W = mg

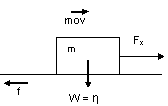
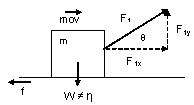
Fx = F cos θ

Fy = F sen θ

f = μ η

Σ Fx = Fx -f

η = W + Fy

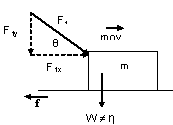
W = mg

Fx = F cos θ

f = μ η

Σ Fx = Fx -f

η = W



W = mg

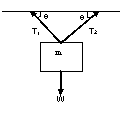
Fx = F cos θ

Fy = F sen θ

f = μ η

Σ Fx = Fx –f

η = W - Fy



Tensión

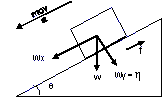
W = mg

Ty = T sen θ

Tx = T cos θ

T2x –T1x = 0

T1y +T2y – W = 0



Σ Fx = Wx –f

Plano Inclinado

Para todos:

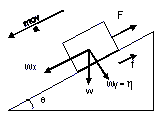
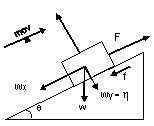
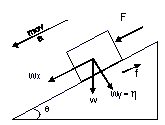
W = mg

Wx = W sen θ

Wy = W cos θ

Wy = η

f = μ η

Σ Fx = Wx –F -f

Σ Fx = F- Wx –f

Σ Fx = Wx + F –f

Trabajo, energía y potencia

T T P U

Impulso y cantidad de movimiento

CM F Δt

**Conservación de la cantidad de movimiento**

**Movimiento circular**

|  |  |  |
| --- | --- | --- |
| Nombre Gpo Núm. List | | |
| LONGITUD SI | Tiempo | SI SUEU |
| 1 km = 1000 m | 1 año = 52 semanas | 1 mi = 1.609 Km |
| 1 m = 100 cm | 1 año = 12 meses | 1 mi = 1609 m |
| MASA SI | 1 año = 365 días | 1 yd = 0.914 m |
| 1 Kg = 1000 g | 1 semana = 7 días | 1 ft = 30.48 cm |
| 1 g = 1000 mg | 1 día = 24 horas | 1 in = 2.54 cm |
| VOLUMEN SI | 1 hora = 60 minutos | 1 lb = 0.454 Kg |
| 1 m3 = 1000 l | 1 hora = 3600 s | 1 m = 39.37 in |
| 1 m3 = 1 000 000 ml | 1 min = 60 s | 1 m = 3.28 ft |
| 1 cm3 = 1 ml | VELOCIDAD | 1 Km/h = 0.621 mi/h |
|  | 1 Km/h = 0.277 m/s |  |
| Movimiento circular |  |  |
| 1 rev = 360° | 1 rev = 1 vuelta | 1 rev = 2π rad |
| 1 rad = 57.3° |  |  |