

FORMULARI FÍSICA

1. Cinemàtica

$x = x_f - x_0$	$t = t_f - t_0$	$x = x_0 + vt$	$v = (x_f - x_0) / (t_f - t_0)$
$x = x_0 + v_0 t + \frac{1}{2}at^2$	$t = (v_f - v_0) / a$	$v = v_0 + at$	$a = (v_f - v_0) / (t_f - t_0)$

2. Forces i pressions

$F = m a$	$a = F/m$	$m = F/a$	$P = F/S$	$P = d g h$
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3. Energies i treball

$E_c = \frac{1}{2}mv^2$	$E_p = m g h$	$E_t = E_c + E_p$	$h = E_p / (mg)$
$v^2 = 2E_c/m$	$W = F x$	$W = P t$	$P = W/t$

4. Electricitat i gravitació

$F = K (q_1 q_2) / r^2$	$P = I V$	$P = R I^2$	$V = R I$
$I = V/R$	$I = P/V$	$F = G (m_1 m_2) / r^2$	$a = G m_1 / r^2$
$I = Q / t$	$R = \rho l / S$	$E = P t$	$P = m g$
$K = 9 \cdot 10^9 \text{ Nm}^2/\text{C}^2$	$M_t = 5.98 \cdot 10^{24} \text{ kg}$	$G = 6.67 \cdot 10^{-11} \text{ Nm}^2/\text{kg}^2$	$R_t = 6370 \text{ km}$

5. Ones

$T = 1/\nu$	$\nu = 1/T$	$\nu = \lambda \nu$	$\nu = \lambda/T$	$n = c/\nu$	$c = 3 \cdot 10^8 \text{ m/s}$
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