

## Ecuaciones físicas 2

Nº	Ecuación	Despejar	Soluciones
17	$v = \frac{1}{\sqrt{\varepsilon \mu}}$	$\varepsilon$	$\varepsilon = \frac{1}{\mu v^2}$
18	$F = G \frac{M m}{R^2}$	$m, R$	$m = \frac{F R^2}{G M}; \quad R = \sqrt{\frac{G M m}{F}}$
19	$E_c = \frac{1}{2} m v^2$	$v$	$v = \sqrt{\frac{2E_c}{m}}$
20	$m = \frac{B^2 r^2 q}{2v}$	$r$	$r = \frac{1}{B} \sqrt{\frac{2m v}{q}}$
21	$g = G \frac{M}{(R+h)^2}$	$M, R$	$M = \frac{g(R+h)^2}{G}; \quad R = \sqrt{\frac{MG}{g}} - h$
22	$I_0 = \frac{\varepsilon_0}{\sqrt{R^2 + \frac{1}{C^2 W^2}}}$	$W, R$	$W = \frac{I_0}{C \sqrt{(\varepsilon_0 + I_0 R)(\varepsilon_0 - I_0 R)}}$ $R = \frac{\sqrt{(\varepsilon_0 C W + I_0)(\varepsilon_0 C W - I_0)}}{I_0 C W}$
23	$\omega' = \omega \frac{1 - \frac{v}{c}}{\sqrt{1 - \frac{v^2}{c^2}}}$	$v$	<i>No se puede</i>
24	$\frac{1}{p} + \frac{1}{q} = \frac{2}{r}$	$p$	$p = \frac{r q}{2 q - r}$
25	$k = \pi \sqrt{\frac{n_1^2}{a^2} + \frac{n_2^2}{b^2}}$	$a$	$a = \frac{\pi b n_1}{\sqrt{(k b + n_2 \pi)(k b - n_2 \pi)}}$
26	$Q = m c (t_2 - t_1)$	$t_2$	$t_2 = \frac{Q + m c t_1}{m c}$
27	$W = \frac{P_2 V_2 - P_1 V_1}{1 - \gamma}$	$P_2$	$P_2 = \frac{W(1 - \gamma) + P_1 V_1}{V_2}$
28	$\frac{A}{B} = \frac{4N}{\sqrt{\pi}} \left( \frac{m}{2kT} \right)^{\frac{3}{2}}$	$m$	$m = k T \sqrt[3]{\frac{\pi A^2}{2N^2 B^2}}$
29	$c^2 = \left( \frac{g \lambda}{2 \pi} + \frac{2 \pi \gamma}{\rho \lambda} \right) k$	$\rho$	$\rho = \frac{4 \pi \gamma k}{2 \pi \lambda c^2 - k g \lambda^2}$
30	$H = E \sqrt{\frac{\varepsilon_0}{\mu_0}}$	$\varepsilon_0$	$\varepsilon_0 = \frac{H^2 \mu_0}{E^2}$
31	$P_1 - P_2 = \rho g (h_2 - h_1)$	$h_1$	$h_1 = \frac{\rho g h_2 - P_1 + P_2}{\rho g}$