

## KONSTANTE IN ENAČBE, KI VAM BODO V POMOČ

težni pospešek	$g = 9,81$	$\text{m s}^{-2}$
hitrost svetlobe	$c = 3,00 \cdot 10^8$	$\text{m s}^{-1}$
osnovni naboj	$e_0 = 1,60 \cdot 10^{-19}$	$\text{A s}$
atomska enota mase	$u = 1,66 \cdot 10^{-27}$	$\text{kg}$
Avogadrovo število	$N_A = 6,02 \cdot 10^{26}$	$\text{kmol}^{-1}$
splošna plinska konstanta	$R = 8,31 \cdot 10^3$	$\text{J kmol}^{-1} \text{K}^{-1}$
gravitacijska konstanta	$\kappa = 6,67 \cdot 10^{-11}$	$\text{N m}^2 \text{kg}^{-2}$
influenčna konstanta	$\epsilon_0 = 8,85 \cdot 10^{-12}$	$\text{A s V}^{-1} \text{m}^{-1}$
indukcijska konstanta	$\mu_0 = 4\pi \cdot 10^{-7}$	$\text{V s A}^{-1} \text{m}^{-1}$
Boltzmannova konstanta	$k = 1,38 \cdot 10^{-23}$	$\text{J K}^{-1}$
Planckova konstanta	$h = 6,63 \cdot 10^{-34}$	$\text{J s} = 4,14 \cdot 10^{-15} \text{eV s}$
Stefanova konstanta	$\sigma = 5,67 \cdot 10^{-8}$	$\text{W m}^{-2} \text{K}^{-4}$

### GIBANJE

$$s = vt$$

$$s = \bar{v}t$$

$$s = v_0 t + \frac{at^2}{2}$$

$$v = v_0 + at$$

$$v^2 = v_0^2 + 2as$$

$$\omega = 2\pi\nu = 2\pi \frac{1}{t_0}$$

$$v = \omega r$$

$$a_r = \omega^2 r$$

$$s = s_0 \sin \omega t$$

$$v = \omega s_0 \cos \omega t$$

$$a = -\omega^2 s_0 \sin \omega t$$

### SILA

$$F = \kappa \frac{m_1 m_2}{r^2}$$

$$\frac{t_0^2}{r^3} = \text{konst.}$$

$$F = ks$$

$$F = pS$$

$$F = k_t F_n$$

$$F = \rho gV$$

$$\vec{F} = m \vec{a}$$

$$\vec{G} = m \vec{v}$$

$$\vec{F} \Delta t = \Delta \vec{G}$$

$$\vec{M} = \vec{r} \times \vec{F}$$

$$\Gamma = J\omega$$

$$M \Delta t = \Delta \Gamma$$

$$p = \rho gh$$

### ENERGIJA

$$A = \vec{F} \cdot \vec{s}$$

$$W_k = \frac{mv^2}{2}$$

$$W_p = mgh$$

$$W_{pr} = \frac{ks^2}{2}$$

$$P = \frac{A}{t}$$

$$A = \Delta W_k + \Delta W_p + \Delta W_{pr}$$

$$A = p\Delta V$$

$$p + \frac{\rho v^2}{2} + \rho gh = \text{konst.}$$