

Extra övningsblad i formelhantering

Formel

$$R_{ers} = R_1 + R_2$$

$$U = E - R_i \cdot I$$

$$v = v_0 + at$$

$$v = v_0 + at$$

$$a^2 + b^2 = c^2$$

$$a^2 + b^2 = c^2$$

$$v = \frac{\Delta s}{\Delta t}$$

$$v = \frac{\Delta s}{\Delta t}$$

$$p = \rho gh$$

$$\frac{p}{\rho g} = h$$

$$\frac{1}{\rho} \frac{p}{g} = h$$

$$\underline{p}$$

$$\frac{\rho}{g} = h$$

$$\frac{1}{p} = \frac{1}{\rho gh}$$

$$E_k = \frac{3}{2} kT$$

$$pV = NkT$$

$$F = k \frac{Q_1 Q_2}{r^2}$$

$$n_i \cdot \sin \alpha_i = n_b \sin \alpha_b$$

$$\nu = \frac{2\pi r}{T}$$

$$\nu = \frac{2\pi r}{T}$$

$$a = 4\pi^2 f^2 r$$

$$a = 4\pi^2 f^2 r$$

$$m_1 u_1 + m_2 u_2 = m_1 v_1 + m_2 v_2$$

$$m_1 u_1 + m_2 u_2 = m_1 v_1 + m_2 v_2$$

$$m_1 u_1 + m_2 u_2 = m_1 v_1 + m_2 v_2$$

$$F = k \frac{Q_1 Q_2}{r^2}$$

Uppgift

R₁ skall bli fritt

Svar

E skall bli fritt

v₀ skall bli fritt

a skall bli fritt

c skall bli fritt

a skall bli fritt

Δs skall bli fritt

Δt skall bli fritt

ρ skall bli fritt

p skall bli fritt

T skall bli fritt

T skall bli fritt

k skall bli fritt

n_b skall bli fritt

T skall bli fritt

r skall bli fritt

r skall bli fritt

f skall bli fritt

m₂v₂ skall bli fritt

v₂ skall bli fritt

m₂ skall bli fritt

r skall bli fritt

Formel	Uppgift	Facit
$R_{ers} = R_1 + R_2$	R ₁ skall bli fritt	$R_1 = R_{ers} - R_2$
$U = E - R_i \cdot I$	E skall bli fritt	$E = U + R_i \cdot I$
$v = v_0 + at$	v ₀ skall bli fritt	$v_0 = v - at$
$v = v_0 + at$	a skall bli fritt	$a = \frac{v - v_0}{t}$
$a^2 + b^2 = c^2$	c skall bli fritt	$c = \sqrt{a^2 + b^2}$
$a^2 + b^2 = c^2$	a skall bli fritt	$a = \sqrt{c^2 - b^2}$
$v = \frac{\Delta s}{\Delta t}$	Δs skall bli fritt	$\Delta s = v \cdot \Delta t$
$v = \frac{\Delta s}{\Delta t}$	Δt skall bli fritt	$\Delta t = \frac{\Delta s}{v}$
$p = \rho g h$	ρ skall bli fritt	$\rho = \frac{p}{gh}$
$\frac{p}{\rho g} = h$	p skall bli fritt	$p = h \rho g$
$\frac{1}{\rho} \frac{p}{g} = h$	p skall bli fritt	$p = h \rho g$
$\underline{\frac{p}{g}} = h$	p skall bli fritt	$p = h \rho g$
$\frac{1}{p} = \frac{1}{\rho g h}$	p skall bli fritt	$p = \rho g h$
$E_k = \frac{3}{2} k T$	T skall bli fritt	$T = \frac{2E_k}{3k}$
$pV = NkT$	T skall bli fritt	$T = \frac{pV}{Nk}$
$F = k \frac{Q_1 Q_2}{r^2}$	k skall bli fritt	$k = \frac{Fr^2}{Q_1 Q_2}$
$n_i \cdot \sin \alpha_i = n_b \sin \alpha_b$	n _b skall bli fritt	$n_b = \frac{n_i \sin \alpha_i}{\sin \alpha_b}$
$v = \frac{2\pi r}{T}$	T skall bli fritt	$T = \frac{2\pi r}{v}$
$v = \frac{2\pi r}{T}$	r skall bli fritt	$r = \frac{vT}{2\pi}$
$a = 4\pi^2 f^2 r$	r skall bli fritt	$r = \frac{a}{4\pi^2 f^2}$
$a = 4\pi^2 f^2 r$	f skall bli fritt	$f = \sqrt{\frac{a}{4\pi^2 r}}$
$m_1 u_1 + m_2 u_2 = m_1 v_1 + m_2 v_2$	m ₂ v ₂ skall bli fritt	$m_2 v_2 = m_1 u_1 + m_2 u_2 - m_1 v_1$

$$m_1 u_1 + m_2 u_2 = m_1 v_1 + m_2 v_2 \quad v_2 \text{ skall bli fritt}$$

$$m_1 u_1 + m_2 u_2 = m_1 v_1 + m_2 v_2 \quad m_2 \text{ skall bli fritt}$$

$$F = k \frac{Q_1 Q_2}{r^2} \quad r \text{ skall bli fritt}$$

$$v_2 = \frac{m_1 u_1 + m_2 u_2 - m_1 v_1}{m_2}$$

$$m_2 = \frac{m_1 v_1 - m_1 u_1}{u_2 - v_2}$$

$$r = \sqrt{k \frac{Q_1 Q_2}{F}}$$