

**TABLE 1: PHYSICAL CONSTANTS**

NAME	SYMBOL	VALUE
Acceleration due to gravity	$g$	$9,8 \text{ m}\cdot\text{s}^{-2}$
Permittivity of free space	$\epsilon_0$	$8,85 \times 10^{-12} \text{ Fm}^{-1}$

**TABLE 2: FORMULAE****FORCE**

$F_{\text{net}} = ma$	$p = mv$
$f_s^{\text{max}} = \mu_s N$	$f_k = \mu_k N$
$F_{\text{net}} \Delta t = \Delta p$ $\Delta p = mv_f - mv_i$	$F_g = mg$

**WORK, ENERGY AND POWER**

$W = F \Delta x \cos \theta$	$U = mgh$ or $E_p = mgh$
$K = \frac{1}{2}mv^2$ or $E_k = \frac{1}{2}mv^2$	$\Delta K = K_f - K_i$ or $\Delta E_k = K_{kf} - K_{ki}$
$M_E = E_k + E_p$	$P = \frac{W}{\Delta t}$
$P_{\text{ave}} = Fv_{\text{ave}}$	

**ELASTICITY, VISCOSITY AND HYDRAULICS**

$\sigma = \frac{F}{A}$	$\epsilon = \frac{\Delta \ell}{L}$
$\frac{\sigma}{\epsilon} = K$	$\frac{F_1}{A_1} = \frac{F_2}{A_2}$

**ELECTROSTATICS**

$C = \frac{\kappa \epsilon_0 A}{d}$ and $C = \frac{\epsilon_0 A}{d}$	$E = \frac{V}{d}$
$C = \frac{Q}{V}$	

**CURRENT ELECTRICITY**

$R = \frac{V}{I}$	$q = I \Delta t$
$W = VQ$ $W = VI \Delta t$ $W = I^2 R \Delta t$ $W = \frac{V^2 \Delta t}{R}$	$P = \frac{W}{\Delta t}$ $P = VI$ $P = I^2 R$ $P = \frac{V^2}{R}$
$R_s = R_1 + R_2 + \dots$	$\frac{1}{R_p} = \frac{1}{R_1} + \frac{1}{R_2} + \dots$

**ELECTROMAGNETISM**

$\phi = BA$	$\varepsilon = -N \frac{\Delta \phi}{\Delta t}$
$\frac{V_s}{V_p} = \frac{N_s}{N_p}$	