

$$s = d/t \quad a_{av} = \Delta V/t \quad D = V_o t + 1/2 at^2 \quad \Delta D = D_f - D_o \quad V_{av} = \frac{V_f + V_o}{2}$$

$$V_f^2 = V_o^2 + 2aD \quad V_{av} = \Delta D/t \quad V_f = V_o + at \quad V_{ins(tan)} = \Delta D/t$$

$$R = \sqrt{F_y^2 + F_x^2} \quad \tan \theta = \frac{F_y}{F_x} \quad F_x = F \cos \theta \quad F_y = F \sin \theta$$

$$\Sigma F = ma \quad (w = mg) \quad F_f = \mu_k N \quad F_f = \mu_s N \quad \tau = Fl$$

$$\theta_{rad} = s/r \quad a_r = V^2/r = (r\omega)^2/r = r\omega^2 \quad V = r\omega$$

$$d \rightarrow r = \pi/180 \quad r \rightarrow d = 180/\pi \quad rpm \rightarrow rad/min = 2\pi/1 \text{ rev}$$

$$P = \rho gh \quad P_T = \rho gh + P_a \quad \rho = m/v \quad F_B = \rho gV \quad P_a = F/A \quad (N/m^2)$$

$$(V = A \Delta h)$$

$$F_B = w_a - w_w \quad P_t = P_g + P_{atm} \quad W = Fd$$

$$\Delta KE + \Delta PE + \Delta W + \Delta Q + \Delta V + \Delta ME = 0 \quad PE = mg \Delta h \quad Q = cm \Delta T \quad KE = 1/2 mV^2 \text{ (J)}$$

$$R_{ser} = R_1 + R_2 \quad \frac{1}{R_{par}} = \frac{1}{R_1} + \frac{1}{R_2} \quad V = IR \quad (V)(\Omega) = (W) \quad (A)(\Omega) = (V)$$

$$a/\sin A = b/\sin B = c/\sin C \quad a^2 = b^2 + c^2 - bc \cos A$$

$$b^2 = a^2 + c^2 - ac \cos B$$

$$c^2 = a^2 + b^2 - ab \cos C$$

$P_{rec} = 2(l+w)$	$A = lw$	$V = lwh$	$LA = 2(lh+lw+wh)$
$P_{cir} = 2\pi r$	$A = \pi r^2$	$V_{sph} = 4/3 \pi r^3$	$A = 4\pi r^2$
$P_{sq} = 4s$	$A = s^2$	$V_{cube} = s^3$	
	$A_{tri} = 1/2 bh$	$V_{pyr} = 1/3 Bh$	$LA = 1/2 ps$
	$A_{trap} = h/2(B+b)$	$V_{cone} = 1/3 \pi r^2 h$	$LA = \pi rs$
	$A_{cyl} = 2\pi r^2 + 2\pi rh$	$V = \pi r^2 h$	
		$V_{prism} = Bh$	

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a} \quad y = ax^2 + bx + c \quad (a \neq 0) \quad y = mx + b \quad (m \neq 0) \quad m = \Delta y / \Delta x$$