$\theta_f = \theta_i + \omega_i \Delta t + \frac{1}{2}\alpha(\Delta t)^2$ $\omega_f = \omega_i + \alpha \Delta t$ $\omega_f^2 = \omega_i^2 + 2\alpha(\Delta\theta)$

$\tau = F_\perp r$ $v = \omega r$ $a_c = \frac{v^2}{r} = \omega^2 r$

$x_{cg} = \frac{x_1 m_1 + x_2 m_2 + x_3 m_3 + \ldots}{m_1 + m_2 + m_3 + \cdots}$ $F_{sp} = -k\,\Delta x$ $\frac{F}{A} = Y\,\frac{\Delta L}{L}$

$\vec{p} = m\vec{v}$ $\vec{J} = \vec{F}\,\Delta t = \Delta\vec{p}$ $\vec{p}_i = \vec{p_f}$

$\Sigma\vec{F} = m\vec{a}$ $m_1 v_{1i} + m_2 v_{2i} = m_1 v_{1f} + m_2 v_{2f}$ $\vec{L} = I\vec{\omega}$

$g = 9.8 m/s^2$

$v_x = \frac{\Delta x}{\Delta t} = \frac{x_f - x_i}{\Delta t}$ $a_x = \frac{\Delta v_x}{\Delta t} = \frac{v_{xf} - v_{xi}}{\Delta t}$

$x_f = x_i + v_{xi}\Delta t + \frac{1}{2} a_x(\Delta t)^2$ $v_{xf} = v_{xi} + a_x\Delta t$ $v_{xf}^2 = v_{xi}^2 + 2a_x(\Delta x)$

$\sin\theta$ = opp/hyp $\cos\theta$ = adj/hyp $\tan\theta$ = opp/adj

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