Formulas
(you need very few of these!!)

$x = x_0 + v_0 t + \frac{1}{2} a_x t^2$	$D = \frac{1}{2} C \rho A v^2$	$f_k = \mu_k F_N$	$f_s = \mu_s F_N$
$v = v_0 + at$	$v_x^2 = v_{x0}^2 + 2a_x (x - x_0)$		$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$
$\sin\theta = \frac{o}{h}$	$\cos\theta = \frac{a}{h}$	$\tan\theta = \frac{o}{a}$	
$\vec{r} = \vec{r}_0 + \vec{v}_0 t + \frac{1}{2} \vec{a}\, t^2$	$\vec{v} = \vec{v}_0 + \vec{a}t$	$\vec{v}^{\,2} = \vec{v}_0^{\,2} + 2\vec{a}(\vec{r} - \vec{r}_0)$	
$y = (\tan\theta)x - \frac{g x^2}{2(v_0 \cos\theta_0)^2}$		$a_r = \frac{v_t^2}{r}$	$R = \frac{v^2}{g}\sin(2\theta)$
$\sum \vec{F} = m\vec{a}$			
$\sin 30° = 0.5 = \cos 60°, \cos 30° \sim 0.8 \sim \sin 60°$			$\sin 45° \sim 0.7 \sim \cos 45°$
use $g = 10 \frac{m}{\sec^2}$,	$\tan 45° = 1$	$\tan 30° \approx 0.5$	
$C = 2\pi r$	$A = \pi r^2$	$V = \frac{4}{3}\pi r^3$	$A_{sphere} = 4\pi r^2$	$A_{cylinder} = 2\pi r h$
$v = \frac{dx}{dt}$	$a = \frac{dv}{dt}$	$T = \frac{2\pi}{\omega}$	
$s = \theta R$	$v_t = \omega R$	$a_t = \alpha R$	
$\theta = \theta_0 + \omega_0 t + \frac{1}{2}\alpha\, t^2$	$\omega = \omega_0 + \alpha t$		