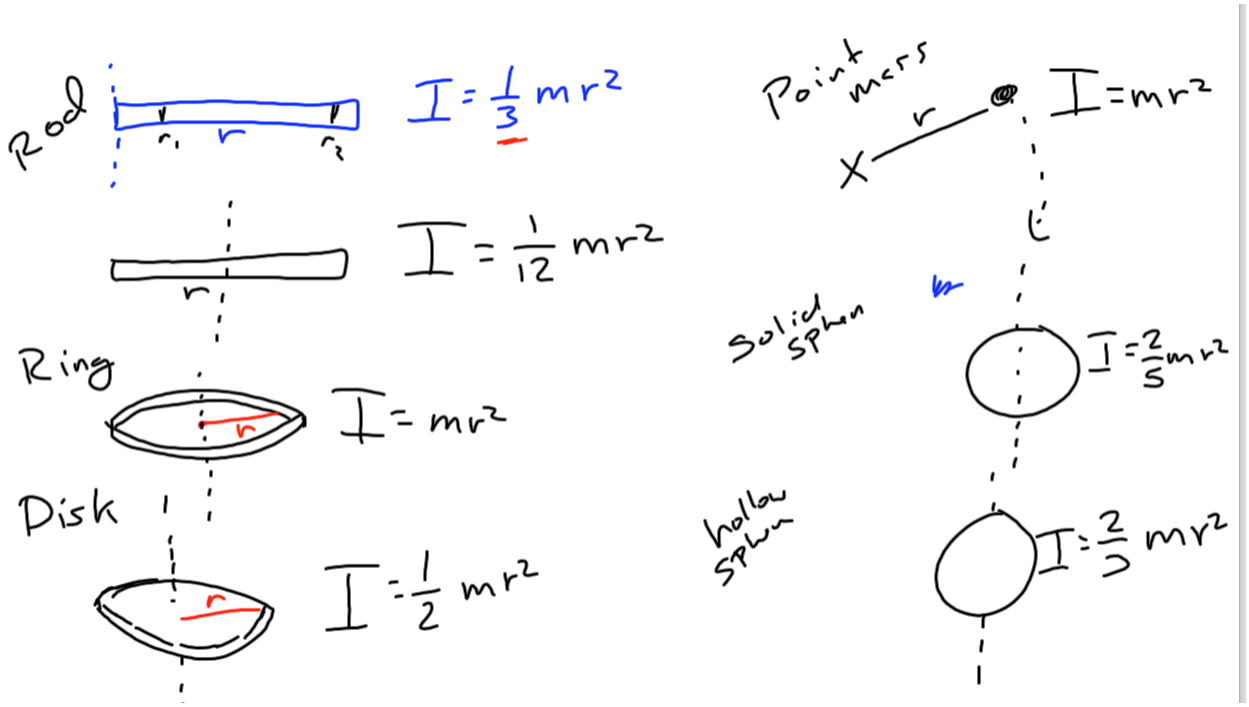
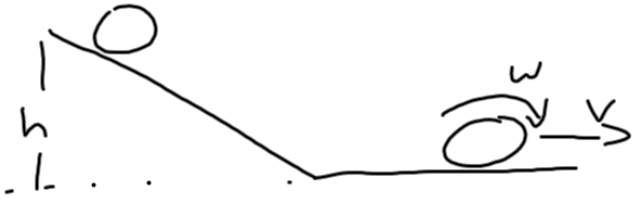
Moment's Of Inertia:



Web Assign Problem 1



$E_{Total\,i} = U_g$

$E_{Total\,f} = K_{Tran} + K_{ROT}$

$V = r\omega$

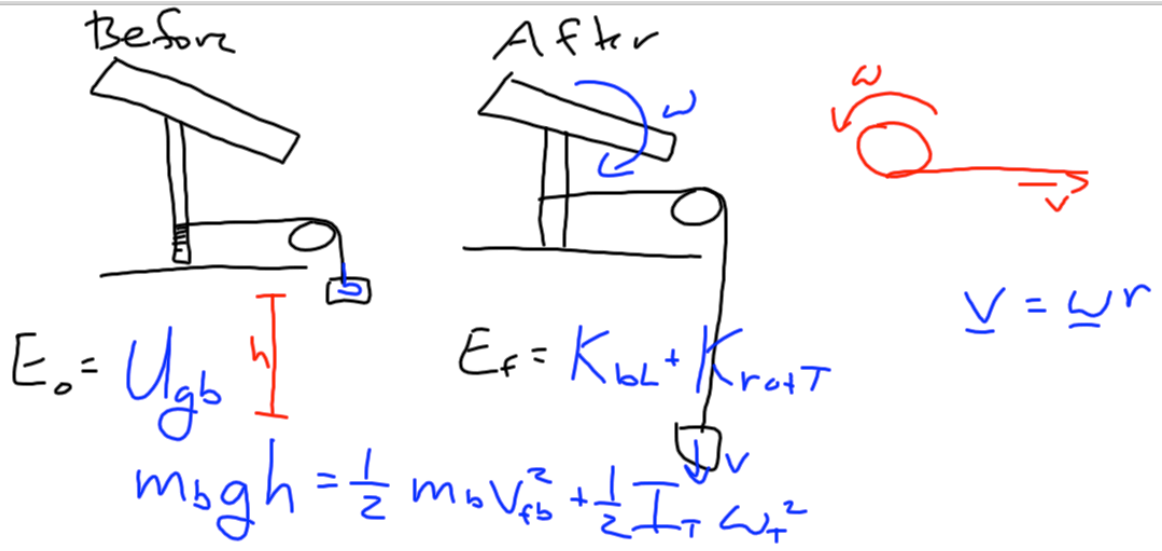
$\omega = \frac{V}{r}$

$mgh = \frac{1}{2} mv^2 + \frac{1}{2} I\omega^2$

$mgh = \frac{1}{2} mv^2 + \frac{1}{2} \cdot \frac{2}{5} mr^2\omega^2$

$gh = \frac{1}{2} v^2 + \frac{1}{5} r^2 \left(\frac{v}{r}\right)^2$

Other Rotational Energy Set ups



Angular Momentum: