$$P = P'$$

$$m_1 v_1 + m_2 v_2 = m_1 v_1' = m_2 v_2'$$

$$g = 9.8 \frac{m}{s^2}$$

T=period, Δt for one revolution

Circular Motion

$r = radius$

$$v = \frac{2r\pi}{T}$$

$$F = \frac{mv^2}{r}$$

$$a = \frac{v^2}{r}$$

$$Circumference = 2r\pi$$

$$PE = mgh$$

$$KE = \frac{1}{2}mv^2$$

$$W = F\Delta s \cos\theta$$

$$Power = \frac{w}{\Delta t}$$

W=change in energy

$$v = \frac{\Delta s}{\Delta t}$$

$$a = \frac{v_f - v_i}{\Delta t}$$

$$\Delta s = v_i \Delta t = \frac{1}{2} a \Delta t^2$$

$$v_f^2 = v_i^2 = 2a\Delta s$$

eye height_____ pace length _____

average mass of person is 65kg

# of g's on a body= $\frac{a}{9.8}$