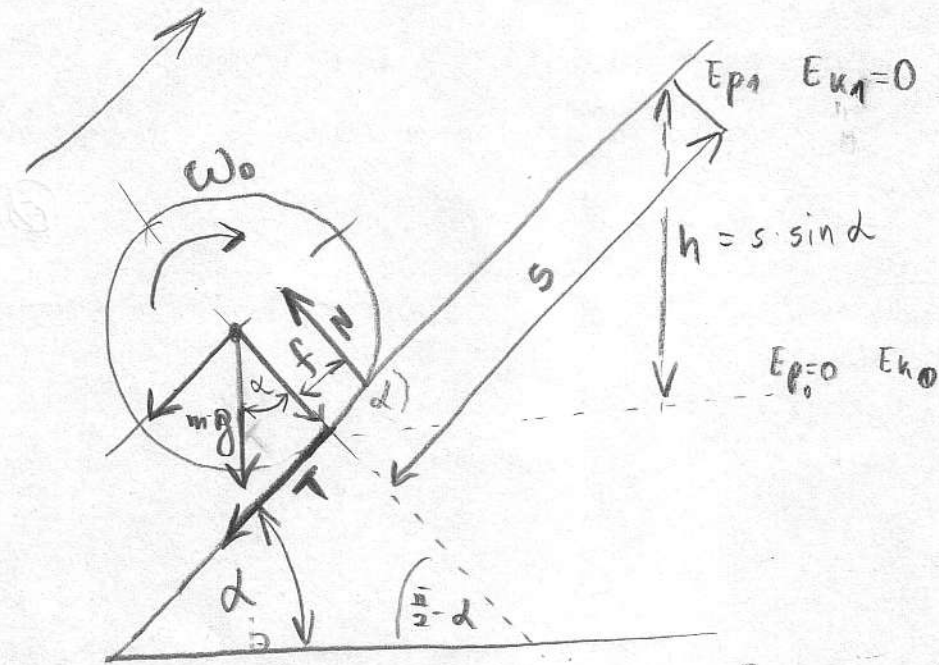


$$s = ?$$



$$E_{p0} + E_{k0} = E_{p1} + E_{k1}$$

$$\frac{m \cdot (\omega_0 \cdot r)^2}{2} + \frac{1}{2} \cdot m \cdot v^2 \cdot \frac{\omega_0^2}{2} = m \cdot g \cdot s \cdot \sin \alpha$$

$$\frac{1}{2} \cdot m \cdot \omega_0^2 \cdot r^2 + \frac{1}{4} \cdot m \cdot r^2 \cdot \omega_0^2 = m \cdot g \cdot s \cdot \sin \alpha$$

$$\frac{3}{4} \cdot m \cdot \omega_0^2 \cdot r^2 = m \cdot g \cdot s \cdot \sin \alpha \quad | : m$$

$$\frac{3}{4} \cdot \omega_0^2 \cdot r^2 = g \cdot s \cdot \sin \alpha$$

$$s = \frac{3}{4} \cdot \frac{\omega_0^2 \cdot r^2}{g \cdot \sin \alpha}$$

$$E_{k0} = \frac{m \cdot v_0^2}{2} + \frac{I \cdot \omega_0^2}{2}$$

$$E_{k0} = \frac{m \cdot (\omega_0 \cdot r)^2}{2} + \frac{1}{2} m \cdot r^2 \cdot \frac{\omega_0^2}{2}$$

$$E_{p1} = m \cdot g \cdot h$$

$$E_{p1} = m \cdot g \cdot s \cdot \sin \alpha$$