HW 9-12 Soln)

For a round symmetric shape we might assume that I = γMR^2.

$$\omega_f = 600 \frac{\text{rev}}{\text{min}} \times \frac{1 \text{ min}}{60 \text{ sec}} \times \frac{2\pi \text{ rad}}{\text{rev}} = 62.8 \text{ rad/sec}$$

$$\alpha = \frac{\omega_f - \omega_i}{t} = \frac{62.8 - 0}{3} = 20.93 \text{ rad/s}^2$$

$$I = \frac{\tau}{\alpha} = \frac{11.73}{20.93} = 0.56$$

$$\gamma = \frac{I}{MR^2} = \frac{0.56}{7(0.4^2)} = 0.5003$$

We might suppose that ==the object is disk-shaped==.