

Ex 10.9
p 324

$$I = 2.5 \text{ kg m}^2$$

$$\omega_z = (40 \text{ rad/s}^2) t^2$$

a,
$$L_z = I \omega_z = (2.5 \text{ kg m}^2)(40 \text{ rad/s}^2) t^2$$

$$L_z = (100 \text{ kg m}^2 \text{s}^{-2}) t^2 = 900 \text{ kg m}^2 \text{s}^{-2} \text{ at}$$

b, Torque,
$$\tau_z = \frac{dL_z}{dt} = (200 \text{ kg m}^2 \text{s}^{-2}) t = 600 \text{ N}$$

