$$I = I_{cm} + M\left(\frac{\ell}{4}\right)^2$$

$$= \frac{M\ell^2}{12} + \frac{M\ell^2}{16}$$

$$= \frac{4M\ell^2 + 3M\ell^2}{48}$$

$$= \frac{7m\ell^2}{48}$$