36. (a) Using Table 11-2(c), the rotational inertia is

$$I = \frac{1}{2}mR^2 = \frac{1}{2}(1210\,\text{kg})\left(\frac{1.21\,\text{m}}{2}\right)^2 = 221\ \text{kg}\cdot\text{m}^2\ .$$

(b) The rotational kinetic energy is, by Eq. 11-27,

$$\begin{aligned} K &= \frac{1}{2}I\omega^2 \\ &= \frac{1}{2}\left(2.21\times10^2\,\text{kg}\cdot\text{m}^2\right)\left((1.52\,\text{rev/s})(2\pi\,\text{rad/rev})\right)^2 \\ &= 1.10\times10^4\ \text{J}\ . \end{aligned}$$