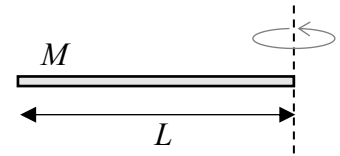


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## Worksheet: Torque

1. Use the parallel-axis theorem to calculate the moment of inertia  $I$  of a slender rod of mass  $M$  and length  $L$  pivoted about an axis through one end, perpendicular to the rod.



2. A 3.00-kg box hangs from a massless cord that winds around a uniform solid cylinder of mass 5.00 kg and radius 4.00 cm. The cylinder is mounted on an axle so that it can rotate freely. The box is released from rest: find its speed after it has dropped 1.50 m.

