

## GLOSSARY

### A

**angular momentum** the product of a rotating object's moment of inertia and the angular speed about the same axis (292)

### C

**center of mass** the point at which all the mass of the body can be considered to be concentrated when analyzing translational motion (283)

### L

**lever arm** the perpendicular distance from the axis of rotation to a line drawn along the direction of the force (279)

### M

**moment of inertia** the tendency of a body rotating about a fixed axis to resist a change in rotational motion (284)

### R

**rotational kinetic energy** the energy of an object due to its rotational motion (295)

### T

**torque** a quantity that measures the ability of a force to rotate an object around some axis (279)