

## GLOSSARY

### A

**angular acceleration** the time rate of change of angular speed, expressed in radians per second per second (249)

**angular displacement** the angle through which a point, line, or body is rotated in a specified direction and about a specified axis (246)

**angular speed** the rate at which a body rotates about an axis, usually expressed in radians per second (247)

### C

**centripetal acceleration** acceleration directed toward the center of a circular path (257)

### G

**gravitational force** the mutual force of attraction between particles of matter (263)

### R

**radian** an angle whose arc length is equal to its radius, which is approximately equal to  $57.3^\circ$  (245)

**rotational motion** the motion of a body that spins about an axis (244)

### T

**tangential acceleration** the instantaneous linear acceleration of an object directed along the tangent to the object's circular path (255)

**tangential speed** the instantaneous linear speed of an object directed along the tangent to the object's circular path (253)