

CHAPTER OVERVIEW

44: Rolling Bodies

The motion of a body like a sphere or a cylinder rolling (without slipping) down an inclined plane introduces a complication into the motion: the body as a whole moves down the incline, while at the same time the body rotates about its axis. The net movement of the body is a combination of both motions: a translational movement of the whole body down the incline, together with a rotational motion about its axis. We'll examine here the velocity, acceleration, and kinetic energy of a round body rolling down an incline.

[44.1: Velocity](#)

[44.2: Acceleration](#)

[44.3: Kinetic Energy](#)

[44.4: The Wheel](#)

[44.5: Ball Rolling in a Bowl](#)

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