

CHAPTER OVERVIEW

36: Rotational Motion

We can describe the rotation of a solid body about an axis in a manner similar to the way we describe linear motion.

First, instead of the giving position of the body along an axis, we specify its rotation angle θ relative to an agreed-upon zero rotation angle. Then we define an angular velocity ω in a way similar to the definition of linear velocity:

$$\omega = \frac{d\theta}{dt} \quad (36.1)$$

We also define an angular acceleration α that's analogous to linear acceleration:

$$\alpha = \frac{d\omega}{dt} = \frac{d^2\theta}{dt^2} \quad (36.2)$$

[36.1: Translational vs. Rotational Motion](#)

[36.2: Problems](#)

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