CHAPTER OVERVIEW

8: Kinematics in One Dimension

Kinematics is the study of motion, without regard to the forces responsible for the motion. In kinematics, we describe the motion of an object by analyzing its position, velocity and acceleration.

Dynamics is the study of motion which includes kinematics along with the forces present that influence the motion. With dynamics, we introduce the ideas of *force* and *mass*. A special case of dynamics is called *statics*, and is the study of those problems in which the forces balance and there is no motion in the system.

We'll begin our study of kinematics in one dimension; the generalization to two or three dimensions is fairly straightforward. Studies of dynamics and statics will come later.