

Physics: Learning Objectives

Kinematics: One-Dimensional Motion (Part II)

1. Describe important features of Galileo's free-fall and inclined plane investigations.
2. Use Galileo's law of odd numbers and law of squares to describe the characteristics of uniformly accelerated linear motion - including free-fall motion.
3. Apply the modified form of the kinematic equations to solve free-fall problems.
4. Describe features of free-fall motion and apply Galileo's law of falling bodies to problems.
5. Describe the effect of air on a falling body in terms of forces, distanced travelled, velocity, acceleration and terminal velocity.
6. Use motion diagrams and position, velocity and acceleration graphs to describe and interpret rectilinear motion of free-fall and uniform acceleration.
7. Compare the free-fall accelerations on other celestial bodies and predict the effect of these accelerations on free-fall there.