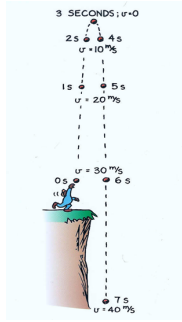


Gravitational Acc w vi

Grav. Acc. w/ v_i

Objectives

Calculate time, distance, velocity & acceleration for objects that begin with a positive initial velocity.



Gravitational Acceleration Problem

If you drop a hammer and a feather on the moon, what would actually happen? *Boom Same Time!*

How long would it take to reach the ground at a height of 1.5m?



$$d = \frac{1}{2}at^2 \quad \left| \quad 1.5m = \frac{1}{2}(1.6 \frac{m}{s^2})t^2 \quad \right| \quad t = 1.37 \text{ sec}$$

$$1.5m = .8t^2$$

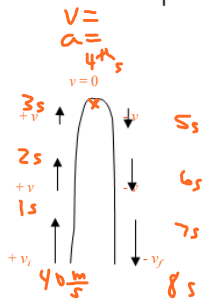
How fast would each be traveling when they hit on the moon?

$$V = at \quad \left| \quad -1.6 \frac{m}{s^2} \cdot 1.37 \text{ sec} = -2.19 \text{ m/s}$$

$v_i = 40 \text{ m/s}$

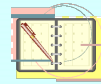


v for entire flight?



d for highest point?

Assignments . . .



- Finish Lab: Bomb's Away
- Chapter 1 Study Guide



Attachments

IP Ch2D7 Acc.IP