

PHYSICS 151 READING ASSIGNMENT

FOR JUNE 12

SECTIONS 3.4 TO 3.8

Please notice that this file is two pages long.

3.4 - Motion on a Ramp

- Kind of a nice application of vector components but probably not worth taking the time to go over in class

3.5 - Relative Motion

- Very nice and practical application of vector addition
- The notation is fairly tedious but once learned is the best way to remember how to calculate the relative velocity

3.6 - Motion in Two Dimensions: Projectile Motion

- Projectile - object that moves in two dimensions, motion due to gravity
- The *components* of the initial velocity go into the equations
- Projectiles have uniform motion in x and free fall in y - this leads to the parabola as the trajectory
- The x and y motion are independent of each other

3.7 -Projectile Motion: Solving Problems

- Same idea as one-dimensional motion, but you have to keep track of twice as many variables
- The range of a projectile - how far away it lands.
- For launching at ground level, 45° gives the maximum range

3.8 -Motion in Two Dimensions: Circular Motion

- Just read this over for now. We'll return in more detail in chapter 6