# Reading Assignment for September 11 Sections 3.5 through 3.7 

## 3.5 - 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


## 3.6 - 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, $45^{\circ}$ gives the maximum range


## 3.7-Circular Motion

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

