Chapter 3 what you need to know.

* Vector (Magnitude and Direction) vs. Scalar (just Magnitude)
* Vector arrows (length represents magnitude)(direction represents direction)

-know how to determine cardinal directions, and direction of vector.

-Maximum (add them in the same direction)

-Minimum (add them in opposite direction)

-Between (add them with right angles DO TRIG)

* What is and what is not a projectile? (is: gravity is the only force acting on it. Has to be falling or moving through the air)
* Las Vegas Rule of Physics
* X component (constant speed, never accelerating)(why?)
* Y component (accelerating at 10 m/s2, velocity always changing, even at the top where the velocity is 0)
* Bullet dropped vs Bullet shot (horizontally), IT IS THE SAME!
* What happens at the top of a projectile? (Y velocity at the top is 0, X velocity at the top is constant or the same, acceleration at the top is 10 m/s2)
* Angles of Projectiles (what happens with complimentary angles? What angle will go the farthest?)
* We always pretend that air resistance is always negligible…what if it wasn’t, how would projectiles behave?
* Launch speed vs. impact speed
* Satellites are projectiles doing what? (8,000 m/s)
* Hang time (T1 you double to find the total hang time)
* If you are given hang time how do you find height?
* Falling, how fast? How far?