

READING ASSIGNMENT FOR AUGUST 26

SECTIONS 2.1 AND 2.2

2.1 Describing Motion

- Position-versus-time graphs - very important. They are *not* a picture of the motion
- Representing Velocity - these v_x and v_y equations are only for uniform motion
- From Position to Velocity
 - the slope of the *position-versus-time* graph gives velocity.
 - steeper slope \Rightarrow faster
 - velocity versus time graphs - how they look compared to position graphs
- From Velocity to Position - being able to go “backwards” is useful

2.2 Uniform Motion

- You’ve probably noticed that the graphs have the same shape as in the previous section. We really only expect you to know the graphs for two types of motion - uniform motion and constant acceleration (which are later this chapter). In lecture, I will jump straight into uniform motion.
- Equations for uniform motion - you may recognize $x_f = x_i + v_x \Delta t$ as “distance = rate times time”. This is true *only* for uniform motion. I’m probably just going to use $v_x = \frac{\Delta x}{\Delta t}$ since it’s basically the same thing.
- From Velocity to Position - displacement is area “under” the velocity versus time graph. This means that you find the area of the shape filled in from the line of the graph all the way down to zero. Carefully read the “Note” on page 38.