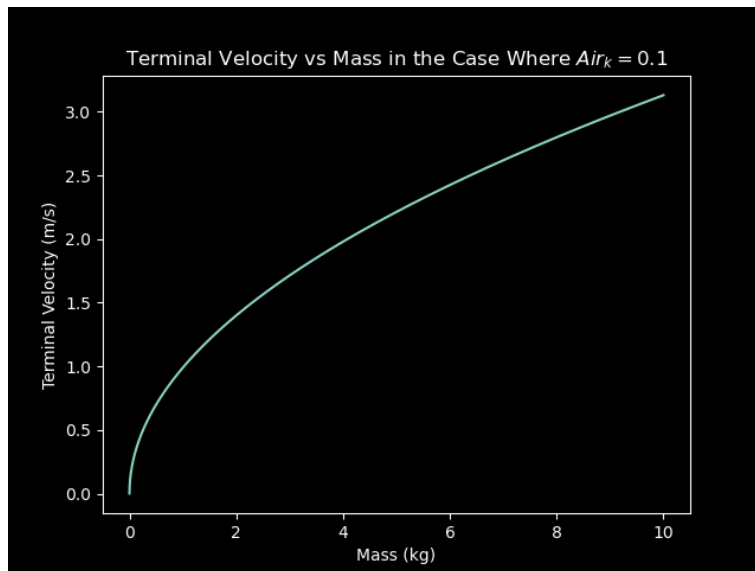


1) Makefile and vterm was updated appropriately.

2) In the variation of step size I found that energy was better conserved when there was a smaller step size rather than a larger step size. I first used a step size of 5, which led to a final-initial energy of 1219.48 J. However, when I used a step size of 200 I found that the final-initial energy was 58.5863 J. This, of course, indicates that a smaller step size is more accurate in the case without air resistance.

3) v_t given the default parameters is 31.3209 m/s

4)



5) The best part about air resistance calculations is that for the most part, especially for geometrical objects, they are able to be calculated analytically and arrive at an exact solution. The same applies for something that travels in projectile motion without air resistance. So, for looking at accuracy, all you need to do is calculate relative error for the numerical method vs the exact method.