## Report : ODE-3-a

I use RKnStep.cpp to get a vterm.dat which contains 4 columns. There are m , v_terminal(RK4), v_terminal(Analytic), v_terminal(RK4) – v_terminal(Analytic).

Where $v\_terminal(Analytic) = \sqrt{mg/air\_k}$

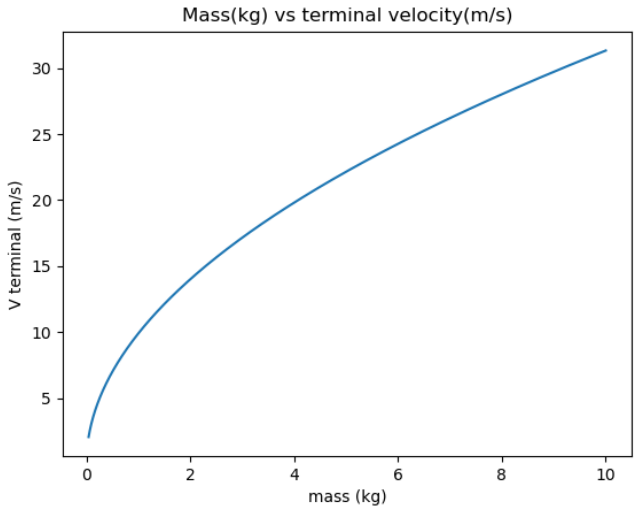


Figure 1 : Mass(kg) vs V_terminal(RK4) (m/s)

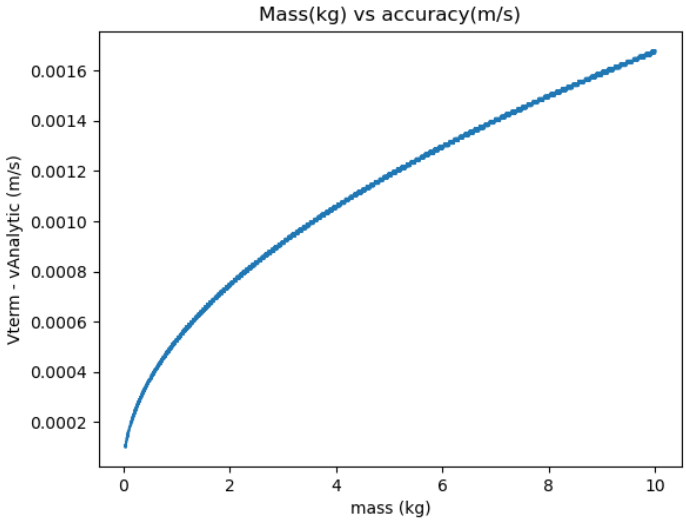


Figure 2 : Mass(kg) vs V_terminal accuracy(m/s)

Note : V_terminal accuracy I use the diff(V_RK4 – V_Analytic) < 1e-5 (m/s)