

trajectory given: initial velocity=30[m/s], $\Theta = 45^\circ$, $x_0=0$ [m],
 $y_0=0$ [m], $a_g=9.81[m * s^{-2}]$, mass=2[kg],
 $\Delta t = 0.002[s]$, $C_d=0.02[kg * m^{-1}]$

