Air Resistance Euler's Method

i	t (s)	a (m/s^2)	v (m/s)	y (m)	theory y (m)		
0	0.00	9.800	0.000	0.000	0.000	Total time =	10
1	0.40	9.800	3.920	0.000	0.782		
2	0.80	9.666	7.840	1.568	3.108	No. of intervals =	25
3	1.20	9.262	11.706	4.704	6.915		
4	1.60	8.601	15.411	9.386	12.110	Delta t =	0.4
5	2.00	7.722	18.851	15.551	18.572		
6	2.40	6.690	21.940	23.092	26.167		
7	2.80	5.588	24.616	31.868	34.754		
8	3.20	4.498	26.852	41.714	44.195	v0 =	0
9	3.60	3.491	28.651	52.455	54.360		
10	4.00	2.617	30.047	63.915	65.133	y0 =	0
11	4.40	1.900	31.094	75.934	76.408		
12	4.80	1.340	31.854	88.372	88.096	a0 = g =	9.8
13	5.20	0.921	32.390	101.113	100.120		
14	5.60	0.620	32.759	114.069	112.418		
15	6.00	0.410	33.007	127.173	124.935		
16	6.40	0.267	33.171	140.376	137.629	b=	0.035
17	6.80	0.172	33.278	153.644	150.465		
18	7.20	0.110	33.347	166.955	163.414	m =	4
19	7.60	0.070	33.391	180.294	176.453		
20	8.00	0.044	33.419	193.650	189.564		
21	8.40	0.028	33.436	207.018	202.732	terminal v =	33.466
22	8.80	0.018	33.448	220.392	215.946		
23	9.20	0.011	33.455	233.771	229.195	tau =	3.4149
24	9.60	0.007	33.459	247.153	242.473		
25	10.00	0.004	33.462	260.537	255.774		

s

s

m/s

m

m/s^2

kg/m

kg

m/s