

Data Observed

Because the Apple //e doesn't have a clock, time (seconds) is calculated by 'counting ticks' for (L) seconds then dividing the total number of ticks (k3) by (L). This was done using a stopwatch and input buttons.

ks = the number of ticks the computer counted over a length of time (L) seconds [calibration menu]

ks = 870.6667

k3 = 32533

ts = 75

y2 = 2.005208

y3 = 5.015625

ks = (k3-k1)/ts

k1 = -32767

seconds

feet

feet

Object: little red marble

ft/(sec^2) g	tick k2	tick k3	sec t0	sec t2	sec t3	ft/sec v1	ft/sec v2	ft/sec v3	inches y0i
30.2	248	429	0.09	0.28	0.49	2.74	11.34	17.62	-1.49
31.0	248	427	0.08	0.28	0.49	2.62	11.46	17.83	-1.33
31.7	246	423	0.08	0.28	0.49	2.61	11.58	18.04	-1.29
32.1	228	402	0.11	0.26	0.46	3.46	11.86	18.27	-2.23
31.8	248	425	0.08	0.28	0.49	2.51	11.57	18.04	-1.18
31.6	242	419	0.09	0.28	0.48	2.83	11.60	18.02	-1.52
31.7	236	412	0.10	0.27	0.47	3.10	11.69	18.09	-1.83
31.3	230	406	0.11	0.26	0.47	3.45	11.73	18.06	-2.29
31.7	246	423	0.08	0.28	0.49	2.61	11.58	18.04	-1.29
32.0	253	430	0.07	0.29	0.49	2.25	11.55	18.06	-0.95
31.3	246	424	0.09	0.28	0.49	2.67	11.52	17.93	-1.37
31.9	249	426	0.08	0.29	0.49	2.45	11.57	18.05	-1.13

Object: eraser

17.5	242	463	0.27	0.28	0.53	4.79	9.64	14.08	-7.87
31.2	253	432	0.08	0.29	0.50	2.37	11.43	17.85	-1.08
29.9	259	442	0.08	0.30	0.51	2.30	11.18	17.46	-1.06

Object: chap stick

30.1	266	449	0.07	0.31	0.52	1.97	11.16	17.49	-0.77
30.3	261	443	0.07	0.30	0.51	2.15	11.23	17.57	-0.91
30.8	265	446	0.06	0.30	0.51	1.90	11.28	17.68	-0.70

Object: big black marble

29.4	256	440	0.09	0.29	0.51	2.50	11.14	17.35	-1.28
31.4	257	436	0.07	0.30	0.50	2.17	11.42	17.87	-0.90
31.0	259	439	0.07	0.30	0.50	2.13	11.35	17.77	-0.87

Object: plastic snail

19.6	276	496	0.16	0.32	0.57	3.22	9.44	14.39	-3.16
25.4	286	485	0.08	0.33	0.56	1.94	10.27	16.07	-0.89
24.7	296	498	0.07	0.34	0.57	1.69	10.10	15.85	-0.69

Object: shell

26.3	303	500	0.05	0.35	0.57	1.19	10.33	16.28	-0.32
28.5	261	448	0.08	0.30	0.51	2.42	10.96	17.07	-1.23
23.1	320	530	0.05	0.37	0.61	1.21	9.70	15.26	-0.38