

[Youtube link](#)

1 mile = 1609.3m

1ft = 0.3048m

Kinematics of Blue Origin (New Shepard) launch. Data for rocket booster (which separates from capsule).
20/July/2021. Geoff Bezos (Amazon founder) + three other space tourists!

Time min	Time s	t /s	Altitude /ft	Velocity /mph
0	0	0	-2	0
0	8	8	6	10
0	19	19	1110	35
0	24	24	2536	208
0	32	32	5647	31
0	43	43	11707	458
0	53	53	19302	526
1	5	65	28769	609
1	20	80	44494	806
1	34	94	63223	1069
1	49	109	91965	1500
2	6	126	137204	2159
2	26	146	203398	2070
2	39	159	239985	1794
2	55	175	278503	1449
3	10	190	307615	1122
3	20	200	322077	916
3	35	215	339091	591
3	55	235	350085	179
4	12	252	351210	197
4	21	261	346519	368
4	30	270	336308	-558
4	44	284	324430	-808
5	3	303	292043	-1261
5	19	319	258169	-1606
5	31	331	227370	-1865
5	40	340	201843	-2054
5	49	349	173458	-2245
5	58	358	142876	-2425
6	6	366	113551	-2561
6	16	376	76387	-2537
6	23	383	49662	-2004
6	32	392	30292	-1104
6	41	401	18569	-711
6	51	411	10145	-472
7	1	421	3708	-383
7	4	424	2092	-343
7	8	428	539	-162
7	11	431	313	-118
7	14	434	66	-5
7	18	438	33	-5
7	19	439	12	-5
7	24	444	0	0

x /km	v /ms ⁻¹	a /ms ⁻²
0.00	0.00	0.00
0.00	4.47	0.56
0.34	15.65	1.02
0.77	92.98	15.47
1.72	13.86	-9.89
3.57	204.74	17.35
5.88	235.14	3.04
8.77	272.24	3.09
13.56	360.30	5.87
19.27	477.87	8.40
28.03	670.54	12.84
41.82	965.13	17.33
62.00	925.35	-1.99
73.15	801.97	-9.49
84.89	647.74	-9.64
93.76	501.57	-9.75
98.17	409.48	-9.21
103.35	264.19	-9.69
106.71	80.02	-9.21
107.05	88.06	0.47
105.62	164.51	8.49
102.51	-249.44	-45.99
98.89	-361.20	-7.98
89.01	-563.70	-10.66
78.69	-717.93	-9.64
69.30	-833.71	-9.65
61.52	-918.20	-9.39
52.87	-1003.58	-9.49
43.55	-1084.04	-8.94
34.61	-1144.84	-7.60
23.28	-1134.11	1.07
15.14	-895.84	34.04
9.23	-493.52	44.70
5.66	-317.84	19.52
3.09	-211.00	10.68
1.13	-171.21	3.98
0.64	-153.33	5.96
0.16	-72.42	20.23
0.10	-52.75	6.56
0.02	-2.24	16.84
0.01	-2.24	0.00
0.00	-2.24	0.00
0.00	0.00	0.45

