

Rock Givens		
$y_{R0} =$	108	(m)
$v_{R0} =$	78	(m/s)
$a_R =$	-9.8	(m/s <sup>2</sup> )

Balloon Givens		
$y_{B0} =$	253	(m)
$v_{B0} =$	-43	(m/s)
$a_B =$	4.3	(m/s <sup>2</sup> )

$\Delta t = 0.65$  (s)

N	t (s)	$y_R$ (m)	$v_R$ (m/s)	$y_B$ (m)	$v_B$ (m/s)	$(y_R - y_B)$ (m)
0	0.0	108.0	78.0	253.0	-43.0	-145.0
1	0.7	156.6	71.6	226.0	-40.2	-69.3
2	1.3	201.1	65.3	200.7	-37.4	0.4
3	2.0	241.5	58.9	177.3	-34.6	64.1
4	2.6	277.7	52.5	155.7	-31.8	121.9
5	3.3	309.7	46.2	136.0	-29.0	173.8
6	3.9	337.7	39.8	118.0	-26.2	219.7
7	4.6	361.5	33.4	101.9	-23.4	259.6
8	5.2	381.1	27.0	87.5	-20.6	293.6
9	5.9	396.6	20.7	75.0	-17.8	321.6
10	6.5	408.0	14.3	64.3	-15.1	343.6
11	7.2	415.2	7.9	55.5	-12.3	359.7
12	7.8	418.3	1.6	48.4	-9.5	369.9
13	8.5	417.2	-4.8	43.2	-6.7	374.1
14	9.1	412.0	-11.2	39.7	-3.9	372.3
15	9.8	402.7	-17.6	38.1	-1.1	364.6
16	10.4	389.2	-23.9	38.3	1.7	350.9
17	11.1	371.6	-30.3	40.4	4.5	331.2
18	11.7	349.8	-36.7	44.2	7.3	305.6
19	12.4	323.9	-43.0	49.9	10.1	274.1
20	13.0	293.9	-49.4	57.4	12.9	236.6
21	13.7	259.7	-55.8	66.6	15.7	193.1
22	14.3	221.4	-62.1	77.8	18.5	143.6
23	15.0	178.9	-68.5	90.7	21.3	88.3
24	15.6	132.3	-74.9	105.4	24.1	26.9
25	16.3	81.6	-81.3	122.0	26.9	-40.4

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Modified Rock and Balloon Model

Section R







