Suppose a ball is dropped from a height of 256 feet.
Its height in feet abve the ground t seconds after being dropped is given by the relationship
s(t) = 256 - 16t^2. Find the ball's instantaneous velocity at t = 2.

time incr	time sec t	height ft s(s)	height incr	ave veloc
	0	256.00		
0.1	0.1	255.84	-0.16	-1.6
0.1	0.2	255.36	-0.48	-4.8
0.1	0.3	254.56	-0.80	-8
0.1	0.4	253.44	-1.12	-11.2
0.1	0.5	252.00	-1.44	-14.4
0.1	0.6	250.24	-1.76	-17.6
0.1	0.7	248.16	-2.08	-20.8
0.1	0.8	245.76	-2.40	-24
0.1	0.9	243.04	-2.72	-27.2
0.1	1	240.00	-3.04	-30.4
0.1	1.1	236.64	-3.36	-33.6
0.1	1.2	232.96	-3.68	-36.8
0.1	1.3	228.96	-4.00	-40
0.1	1.4	224.64	-4.32	-43.2
0.1	1.5	220.00	-4.64	-46.4
0.1	1.6	215.04	-4.96	-49.6
0.1	1.7	209.76	-5.28	-52.8
0.1	1.8	204.16	-5.60	-56
0.1	1.9	198.24	-5.92	-59.2
0.1	2	192.00	-6.24	-62.4
0.1	2.1	185.44	-6.56	-65.6
0.1	2.2	178.56	-6.88	-68.8
0.1	2.3	171.36	-7.20	-72
0.1	2.4	163.84	-7.52	-75.2
0.1	2.5	156.00	-7.84	-78.4
0.1	2.6	147.84	-8.16	-81.6
0.1	2.7	139.36	-8.48	-84.8
0.1	2.8	130.56	-8.80	-88
0.1	2.9	121.44	-9.12	-91.2
0.1	3	112.00	-9.44	-94.4
0.1	3.1	102.24	-9.76	-97.6
0.1	3.2	92.16	-10.08	-100.8
0.1	3.3	81.76	-10.40	-104
0.1	3.4	71.04	-10.72	-107.2
0.1	3.5	60.00	-11.04	-110.4
0.1	3.6	48.64	-11.36	-113.6
0.1	3.7	36.96	-11.68	-116.8
0.1	3.8	24.96	-12.00	-120
0.1	3.9	12.64	-12.32	-123.2
0.1	4	0.00	-12.64	-126.4