

x	y					
1	1					
3	2					
4	5					
6	6					
m	b					
0	0					
			mx+b	y-(mx+b)		
x	y		y pred	Error	SSE	
1	1		0	1	1	
3	2		0	2	4	
4	5		0	5	25	
6	6		0	6	36	
				MSE	16.5	
New_m = m - downm*learning_rate						
Learning_rate = 0.01						
new_m	new_b		diff_m	diff_b		
0.315	0.07		0.315	0.07		
			mx+b	y-(mx+b)		
x	y		y pred	Error	SSE	
1	1		0.385	0.615	0.378225	
3	2		1.015	0.985	0.970225	
4	5		1.33	3.67	13.4689	
6	6		1.96	4.04	16.3216	
				MSE	7.7847375	
New_m = m - downm*learning_rate						
Learning_rate = 0.01						
new_m	new_b		diff_m	diff_b		
0.52745	0.11655		0.21245	0.04655		
			mx+b	y-(mx+b)		
x	y		y pred	Error	SSE	
1	1		0.644	0.356	0.126736	
3	2		1.6989	0.3011	0.09066121	
4	5		2.22635	2.77365	7.693134322	
6	6		3.28125	2.71875	7.391601562	
				MSE	3.825533273	
New_m = m - downm*learning_rate						
Learning_rate = 0.01						
new_m	new_b		diff_m	diff_b		
0.670782	0.1472975		0.143332	0.1472975		

gradient_descent_runner = step_gradient* Numbr of Iteration						

$-2x(y-(mx+b))'$		$-2(y-(mx+b))'$	
dow m		dow b	
-2		-2	
-12		-4	
-40		-10	step_gradien
-72		-12	
-31.5		-7	
dow m		dow b	
-1.23		-1.23	
-5.91		-1.97	
-29.36		-7.34	
-48.48		-8.08	
-21.245		-4.655	
dow m		dow b	
-0.712		-0.712	
-1.8066		-0.6022	
-22.1892		-5.5473	
-32.625		-5.4375	
-14.3332		-3.07475	
