

Table 1

Iteration	Input (X)	Weight (w)	Output (a)	Actual (y)	Cost (c)	dc/da	Da/dw	Dc/dw	Alpha
1	15	8	120	75	1012.5	45	15	675	0.001
2	15	7.325	109.875	75	608.1328125	34.875	15	523.125	0.001
3	15	6.801875	102.028125	75	365.259770507813	27.028125	15	405.421875	0.001
4	15	6.396453125	95.946796875	75	219.384149661255	20.946796875	15	314.201953125	0.001
5	15	6.082251171875	91.233767578125	75	131.767604890291	16.233767578125	15	243.506513671875	0.001
6	15	5.838744658203	87.581169873047	75	79.1429176872327	12.581169873047	15	188.717548095705	0.001
7	15	5.650027110107	84.7504066516115	75	47.5352149358949	9.7504066516115	15	146.256099774173	0.001
8	15	5.503771010333	82.5565651549989	75	28.5508384708718	7.5565651549989	15	113.348477324984	0.001
9	15	5.390422533008	80.8563379951242	75	17.1483473565677	5.8563379951242	15	87.845069926863	0.001
10	15	5.302577463081	79.5386619462213	75	10.2997261310387	4.5386619462213	15	68.0799291933195	0.001
11	15	5.234497533888	78.5174630083215	75	6.18627300745507	3.5174630083215	15	52.7619451248225	0.001
12	15	5.181735588763	77.7260338314492	75	3.7156302251028	2.7260338314492	15	40.890507471738	0.001
13	15	5.140845081291	77.1126762193731	75	2.23170040395231	2.1126762193731	15	31.6901432905965	0.001
14	15	5.109154938000	76.6373240700141	75	1.34041505512377	1.6373240700141	15	24.5598610502115	0.001
15	15	5.084595076950	76.268926154261	75	0.805086792483806	1.268926154261	15	19.033892313915	0.001
16	15	5.065561184636	75.9834177695523	75	0.48355525473561	0.9834177695523	15	14.7512665432845	0.001
17	15	5.050809918093	75.7621487714031	75	0.290435374875627	0.7621487714031	15	11.4322315710465	0.001
18	15	5.039377686522	75.5906652978374	75	0.174442747034672	0.5906652978374	15	8.859979467561	0.001
19	15	5.030517707054	75.457765605824	75	0.104774674937707	0.457765605824	15	6.86648408736	0.001
20	15	5.023651222967	75.3547683445136	75	0.062930289134460	0.3547683445136	15	5.321525167704	0.001
21	15	5.018329697799	75.2749454669981	75	0.037797504911401	0.2749454669981	15	4.1241820049715	0.001
22	15	5.014205515794	75.2130827369235	75	0.022702126387404	0.2130827369235	15	3.1962410538525	0.001
23	15	5.011009274741	75.1651391211158	75	0.013635464661449	0.1651391211158	15	2.477086816737	0.001
24	15	5.008532187924	75.1279828188647	75	0.008189800962277	0.1279828188647	15	1.9197422829705	0.001
25	15	5.006612445641	75.0991866846201	75	0.004918999202963	0.0991866846201	15	1.4878002693015	0.001
26	15	5.005124645372	75.0768696805806	75	0.002954473896281	0.0768696805806	15	1.153045208709	0.001
27	15	5.003971600163	75.05957400245	75	0.001774530883956	0.05957400245	15	0.89361003675	0.001
28	15	5.003077990126	75.0461698518987	75	0.001065827612173	0.0461698518987	15	0.6925477784805	0.001
29	15	5.002385442348	75.0357816352215	75	0.000640162709562	0.0357816352215	15	0.5367245283225	0.001
30	15	5.001848717819	75.0277307672967	75	0.000384497727431	0.0277307672967	15	0.4159615094505	0.001
31	15	5.001432756310	75.021491344655	75	0.000230938947539	0.021491344655	15	0.322370169825	0.001
32	15	5.001110386140	75.0166557921077	75	0.000138707705367	0.0166557921077	15	0.2498368816155	0.001

Iteration	Input (X1)	Input (X2)	Weight (w1)	Weight (w2)	Output (a)	Actual (y)	Cost (c)	dc/da	Da/dw1	Da/dw2	Dc/dw1	Dc/dw2	Learning Rate
1	8	5	2	7.5	53.5	64	55.125	-10.5	8	5	-84	-52.5	0.005
2	8	5	2.42	7.7625	58.1725	64	16.979878125	-5.8275	8	5	-46.62	-29.1375	0.005
3	8	5	2.6531	7.9081875	60.7657375	64	5.23022695945312	-3.2342625	8	5	-25.8741	-16.1713125	0.005
4	8	5	2.7824705	7.9890440625	62.2049843125	64	1.61104065918555	-1.7950156875	8	5	-14.3601255	-8.9750784375	0.005
5	8	5	2.8542711275	8.0339194546875	63.0037662934375	64	0.496240799045629	-0.9962337065625	8	5	-7.9698696525	-4.9811685328125	0.005
6	8	5	2.8941204757625	8.05882529735156	63.4470902928578	64	0.152854572126037	-0.5529097071422	8	5	-4.4232776571376	-2.764548535711	0.005
7	8	5	2.9162368640481	8.07264804003012	63.6931351125361	64	0.047083029579116	-0.3068648874639	8	5	-2.4549190997112	-1.5343244373195	0.005
8	8	5	2.9285114595467	8.08031966221672	63.8296899874576	64	0.014502750186096	-0.1703100125424	8	5	-1.3624801003392	-0.851550062712	0.005
9	8	5	2.9353238600484	8.08457741253028	63.905477943039	64	0.004467209626069	-0.094522056961	8	5	-0.756176455688	-0.472610284805	0.005
10	8	5	2.9391047423268	8.08694046395431	63.9475402583867	64	0.001376012245067	-0.0524597416133	8	5	-0.4196779329064	-0.2622987080665	0.005
11	8	5	2.9412031319914	8.08825195749464	63.9708848434046	64	0.000423846171787	-0.0291151565954	8	5	-0.2329212527632	-0.145575782977	0.005
12	8	5	2.9423677382552	8.08897983640953	63.9838410880896	64	0.000130555217064	-0.0161589119104	8	5	-0.1292712952832	-0.080794559552	0.005
13	8	5	2.9430140947316	8.08938380920729	63.9910318038897	64	0.000040214270736	-0.0089681961103	8	5	-0.0717455688824	-0.0448409805515	0.005
14	8	5	2.9433728225760	8.08960801411005	63.9950226511588	64	0.000012387000743	-0.0049773488412	8	5	-0.0398187907296	-0.024886744206	0.005
15	8	5	2.9435719165297	8.08973244783108	63.9972375713932	64	0.000003815505903	-0.0027624286068	8	5	-0.0220994288544	-0.013812143034	0.005
16	8	5	2.9436824136739	8.08980150854625	63.9984668521232	64	0.000001175271206	-0.0015331478768	8	5	-0.0122651830144	-0.007665739384	0.005
17	8	5	2.9437437395890	8.08983983724317	63.9991491029283	64	0.000000362012913	-0.0008508970717	8	5	-0.0068071765736	-0.0042544853585	0.005
18	8	5	2.9437777754719	8.08986110966996	63.9995277521252	64	0.000000111590927	-0.0004722478748	8	5	-0.0037779829984	-0.002361239374	0.005
19	8	5	2.9437966653869	8.08987291586683	63.9997379024295	64	0.000000034347568	-0.0002620975705	8	5	-0.002096780564	-0.0013104878525	0.005
20	8	5	2.9438071492897	8.08987946830609	63.9998545358484	64	0.000000010579909	-0.0001454641516	8	5	-0.0011637132128	-0.000727320758	0.005
21	8	5	2.9438129678558	8.08988310490988	63.9999192673958	64	0.000000003258876	-0.0000807326042	8	5	-0.0006458608336	-0.000403663021	0.005
22	8	5	2.9438161971599	8.08988512322499	63.9999551934047	64	0.000000001003815	-0.0000448065953	8	5	-0.0003584527624	-0.0002240329765	0.005
23	8	5	2.9438179894237	8.08988624338987	63.9999751323396	64	0.000000000309200	-0.0000248676604	8	5	-0.0001989412832	-0.000124338302	0.005
24	8	5	2.9438189841302	8.08988686508138	63.9999861984485	64	0.000000000095241	-0.0000138015515	8	5	-0.000110412412	-0.0000690077575	0.005
25	8	5	2.9438195361922	8.08988721012017	63.9999923401389	64	0.000000000029336	-0.0000076598611	8	5	-0.0000612788888	-0.0000382993055	0.005
26	8	5	2.9438198425867	8.0898874016167	63.9999957487771	64	0.000000000009036	-0.0000042512229	8	5	-0.0000340097832	-0.0000212561145	0.005
27	8	5	2.9438200126356	8.08988750789727	63.9999976405713	64	0.000000000002783	-0.0000023594287	8	5	-0.0000188754296	-0.0000117971435	0.005
28	8	5	2.9438201070127	8.08988756688299	63.9999986905171	64	0.000000000000857	-0.0000013094829	8	5	-0.0000104758632	-0.0000065474145	0.005
29	8	5	2.9438201593920	8.08988759962006	63.999999273237	64	0.000000000000264	-0.000000726763	8	5	-0.000005814104	-0.000003633815	0.005
30	8	5	2.9438201884626	8.08988761778914	63.9999995966466	64	0.000000000000081	-0.0000004033534	8	5	-0.0000032268272	-0.000002016767	0.005
31	8	5	2.9438202045967	8.08988762787298	63.9999997761389	64	0.000000000000025	-0.0000002238611	8	5	-0.0000017908888	-0.0000011193055	0.005
32	8	5	2.9438202135511	8.08988763346951	63.9999998757571	64	0.000000000000007	-0.0000001242429	8	5	-0.0000009939432	-0.0000006212145	0.005
33	8	5	2.9438202185209	8.08988763657558	63.9999999310452	64	0.000000000000002	-0.0000000689548	8	5	-0.0000005516384	-0.000000344774	0.005
34	8	5	2.9438202212791	8.08988763829945	63.9999999617301	64	0.000000000000000	-0.0000000382699	8	5	-0.0000003061592	-0.0000001913495	0.005
35	8	5	2.9438202228099	8.0898876392562	63.9999999787602	64	0.000000000000000	-0.0000000212398	8	5	-0.0000001699184	-0.000000106199	0.005
36	8	5	2.9438202236594	8.0898876397872	63.9999999882119	64	0.000000000000000	-0.0000000117881	8	5	-0.0000000943048	-0.0000000589405	0.005
37	8	5	2.9438202241310	8.0898876400819	63.9999999934576	64	0.000000000000000	-0.0000000065424	8	5	-0.0000000523392	-0.000000032712	0.005
38	8	5	2.9438202243927	8.08988764024546	63.999999996369	64	0.000000000000000	-0.000000003631	8	5	-0.000000029048	-0.000000018155	0.005
39	8	5	2.9438202245379	8.08988764033624	63.9999999979848	64	0.000000000000000	-0.0000000020152	8	5	-0.0000000161216	-0.000000010076	0.005
40	8	5	2.9438202246185	8.08988764038662	63.9999999988816	64	0.000000000000000	-0.0000000011184	8	5	-0.0000000089472	-0.000000005592	0.005
41	8	5	2.9438202246633	8.08988764041458	63.9999999993793	64	0.000000000000000	-0.0000000006207	8	5	-0.0000000049656	-0.0000000031035	0.005
42	8	5	2.9438202246881	8.0898876404301	63.9999999996555	64	0.000000000000000	-0.0000000003445	8	5	-0.000000002756	-0.0000000017225	0.005
43	8	5	2.9438202247019	8.08988764043871	63.9999999998088	64	0.000000000000000	-0.0000000001912	8	5	-0.0000000015296	-0.000000000956	0.005
44	8	5	2.9438202247095	8.08988764044349	63.9999999998939	64	0.000000000000000	-0.0000000001061	8	5	-0.0000000008488	-0.0000000005305	0.005
45	8	5	2.9438202247138	8.08988764044614	63.9999999999411	64	0.000000000000000	-0.0000000000589	8	5	-0.0000000004712	-0.0000000002945	0.005
46	8	5	2.9438202247161	8.08988764044761	63.9999999999673	64	0.000000000000000	-0.0000000000327	8	5	-0.0000000002616	-0.0000000001635	0.005
47	8	5	2.9438202247174	8.08988764044843	63.9999999999819	64	0.000000000000000	-0.0000000000181	8	5	-0.0000000001448	-0.0000000000905	0.005
48	8	5	2.9438202247181	8.08988764044888	63.9999999999899	64	0.000000000000000	-0.0000000000101	8	5	-0.0000000000808	-0.0000000000505	0.005
49	8	5	2.9438202247185	8.08988764044913	63.9999999999944	64	0.000000000000000	-0.0000000000056	8	5	-0.0000000000448	-0.0000000000028	0.005
50	8	5	2.9438202247188	8.08988764044927	63.9999999999968	64	0.000000000000000	-0.0000000000032	8	5	-0.0000000000256	-0.0000000000016	0.005
51	8	5	2.9438202247189	8.08988764044935	63.9999999999983	64	0.000000000000000	-0.0000000000017	8	5	-0.00000000000136	-0.00000000000085	0.005
52	8	5	2.9438202247190	8.08988764044939	63.9999999999999	64	0.000000000000000	-0.0000000000001	8	5	-0.0000000000008	-0.00000000000005	0.005
53	8	5	2.9438202247190	8.08988764044942	63.9999999999995	64	0.000000000000000	-0.0000000000005	8	5	-0.0000000000004	-0.00000000000025	0.005
54	8	5	2.9438202247190	8.08988764044943	63.9999999999997	64	0.000000000000000	-0.0000000000003	8	5	-0.00000000000024	-0.00000000000015	0.005
55	8	5	2.9438202247190	8.08988764044944	63.9999999999998	64	0.000000000000000	-0.0000000000002	8	5	-0.00000000000016	-0.0000000000001	0.005
56	8	5	2.9438202247190	8.08988764044945	64	64	0	0	8	5	0	0	0.005