

Console

n	x1	x2	F(x1,x2)
0	1.0000000000	-2.0000000000	4.0000000000
1	1.3076923077	-2.4615384615	1.0995413326
2	1.4273186886	-2.7527277798	0.2909909621
3	1.5063668833	-2.9088337492	0.0843107055
4	1.5828038888	-2.9957330247	0.0303489271
5	1.6864854379	-3.0048718866	0.0097324013
6	1.7612378208	-2.9871446796	0.0037456190
7	1.7841163657	-3.0195566894	0.0033194876
8	1.7927978930	-2.9942448579	0.0019425828
9	1.8209134476	-3.0215290730	0.0024191157
10	1.8241421427	-3.0033758099	0.0009906049

This shows that the solution tends to  $x_1 = 2$  and  $x_2 = -3$