

Console

n	xn	yn	zn
0	0.0000000000	0.0000000000	0.0000000000
1	0.7000000000	0.3530000000	1.1254464000
2	0.6491294200	0.4466453357	1.0912101149
3	0.6604122299	0.4412215565	1.0929906040
4	0.6597362232	0.4415329841	1.0928899193
5	0.6597747188	0.4415153100	1.0928956284
6	0.6597725342	0.4415163128	1.0928953046

The solution is $x = 0.6597726581$, $y = 0.4415162559$ and $z = 1.0928953229$