

Console

Transformed Equations are=

$$(10x(1)) + (2x(2)) + (-1x(3)) + (2x(4)) = -4$$

$$(1x(1)) + (5x(2)) + (1x(3)) + (0x(4)) = 1$$

$$(1x(1)) + (-2x(2)) + (-5x(3)) + (1x(4)) = 2$$

$$(3x(1)) + (0x(2)) + (0x(3)) + (-9x(4)) = 10$$

r	x1	x2	x3	x4
0.	0.	0.	0.	0.
1.	-0.4	0.28	-0.592	-1.2444444
2.	-0.2663111	0.3716622	-0.850816	-1.1998815
3.	-0.3194377	0.4340507	-0.8774841	-1.2175904
4.	-0.3310405	0.4417049	-0.8864081	-1.2214579
5.	-0.3326902	0.4438197	-0.8883575	-1.2220078
6.	-0.3331981	0.4443111	-0.8887656	-1.2221771
7.	-0.3333034	0.4444138	-0.8888616	-1.2222122
8.	-0.3333265	0.4444376	-0.8888828	-1.2222199
9.	-0.3333318	0.4444429	-0.8888875	-1.2222217
10.	-0.3333330	0.4444441	-0.8888886	-1.2222221
11.	-0.3333333	0.4444444	-0.8888888	-1.2222222
12.	-0.3333333	0.4444444	-0.8888889	-1.2222222

After 11 iterations exact solution is:

$$x1 = -0.333333 \quad x2 = 0.444444 \quad x3 = -0.888889 \quad x4 = -1.222222$$