First-order

tу	optimali	Step-size	f(x)	Func-count	Iteration
	114		50	3	0
	5.7	0.00877193	0.577008	6	1
	3.89	1	0.288298	9	2
	2.26	1	0.0952794	12	3
	1.94	1	0.0371881	15	4
	0.449	1	0.00146998	18	5
	0.0473	1	2.39878e-05	21	6
	0.00042	1	3.28403e-09	24	7
	8.84e-06	1	1.73247e-12	27	8

Local minimum found.

Optimization completed because the size of the gradient is less than the default value of the function tolerance.

Computing finite-difference Hessian using user-supplied objective function.

First-order

Iteration	Func-count	f(x)	Step-size	optimality
0	3	10		50
1	9	0.28433	0.00818844	4.35
2	12	0.152447	1	3.13
3	15	0.00126453	1	0.267
4	18	7.57579e-06	1	0.0191
5	21	8.26384e-09	1	0.00131
6	24	1.38308e-10	1	0.000166
7	27	7.99869e-14	1	1.19e-06

Local minimum found.

Optimization completed because the size of the gradient is less than the default value of the function tolerance.

Computing finite-difference Hessian using user-supplied objective function.

				First-order
Iteration	Func-count	f(x)	Step-size	optimality
0	3	8		36

4.67	0.00756181	0.2697	9	1
2.24	1	0.066855	12	2
0.0996	1	7.70243e-05	15	3
0.00136	1	1.89206e-08	18	4
1.28e-06	1	1.37999e-13	21	5

Local minimum found.

Optimization completed because the size of the gradient is less than the default value of the function tolerance.

Computing finite-difference Hessian using user-supplied objective function.

First-order				
optimality	Step-size	f(x)	Func-count	Iteration
14		2	3	0
0.514	0.0137721	0.00177728	9	1
0.0341	1	9.21033e-06	12	2
0.00176	1	2.55503e-08	15	3
6e-05	1	3.25833e-11	18	4

5 21 1.27633e-14 1 1.09e-06

Local minimum found.

Optimization completed because the size of the gradient is less than the default value of the function tolerance.

Computing finite-difference Hessian using user-supplied objective function.

x1 =

3.0000 2.0000

x2 =

3.5844 -1.8481

x3 =

-3.7793 -3.2832

x4 =

-2.8051 3.1313

ans =

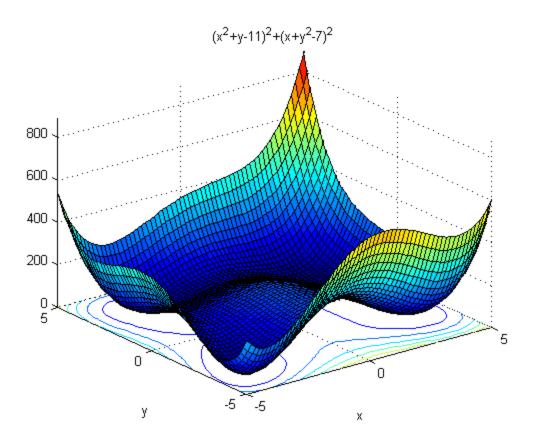
1.0e-11 *

0.1732 0.0080 0.0138 0.0013

ans =

25.7287 28.7008 70.7472 64.8635

82.3093 105.4564 133.8262 80.5788



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