```
======================================
 (1) New value of the obj. func. on iteration 0: 987610927977.674194336
 (2) Old value: 987610927977.674194336
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 3.0000
 (5) Current time of day: Thu Nov  2 09:23:02 2017


Convergence (improvement < crit 1.0000e-06) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement:     1.663101837, Norm of gradient:     576.732492069
lambda =        1; f =    1.0000000e+300
lambda =   0.33333; f =    1.0000000e+300
lambda =   0.11111; f =    1.0000000e+300
lambda =  0.037037; f =    1.0000000e+300
lambda =  0.012346; f =    1.0000000e+300
lambda = 0.0041152; f =    1.0000000e+300
lambda = 0.0013717; f =    1.0000000e+300
lambda = 0.00045725; f =    1.0000000e+300
lambda = 0.00015242; f =    1.0000000e+300
lambda = 5.0805e-05; f =    1.0000000e+300
lambda = 1.6935e-05; f =    1.0000000e+300
lambda =  5.645e-06; f =    1.0000000e+300
lambda = 1.8817e-06; f =    1.0000000e+300
lambda = 6.2723e-07; f =    9.8761093e+11
lambda = 2.0908e-07; f =    9.8761093e+11
lambda = 6.9692e-08; f =    9.8761093e+11
lambda = 2.3231e-08; f =    9.8761093e+11
lambda = 7.7435e-09; f =    9.8761093e+11
lambda = 2.5812e-09; f =    9.8761093e+11
lambda = -6.2723e-07; f =     9.8761093e+11
lambda = -2.0908e-07; f =     9.8761093e+11
lambda = -6.9692e-08; f =     9.8761093e+11
lambda = -2.3231e-08; f =     9.8761093e+11
lambda = -7.7435e-09; f =     9.8761093e+11
lambda = -2.5812e-09; f =     9.8761093e+11
Norm of dx  0.0057673
======================================
 (1) New value of the obj. func. on iteration 0: 987610927977.674194336
 (2) Old value: 987610927977.674194336
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 0.0000
 (5) Current time of day: Thu Nov  2 09:23:02 2017


Convergence (improvement < crit 1.0000e-06) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 1525595152624590478376960.000000000, Norm of gradient: 552375805520949.750000000
lambda =        1; f =    5.1900000e+302
lambda =   0.33333; f =    5.1900000e+302
lambda =   0.11111; f =    5.1900000e+302
lambda =  0.037037; f =    5.1900000e+302
lambda =  0.012346; f =    5.1900000e+302
lambda = 0.0041152; f =    5.1900000e+302
lambda = 0.0013717; f =    5.1900000e+302
lambda = 0.00045725; f =    5.1900000e+302
lambda = 0.00015242; f =    5.1900000e+302
lambda = 5.0805e-05; f =    5.1900000e+302
lambda = 1.6935e-05; f =    5.1900000e+302
lambda =  5.645e-06; f =    5.1900000e+302
lambda = 1.8817e-06; f =    5.1900000e+302
lambda = 6.2723e-07; f =    5.1900000e+302
lambda = 2.0908e-07; f =    5.1900000e+302
lambda = 6.9692e-08; f =    5.1900000e+302
lambda = 2.3231e-08; f =    5.1900000e+302
lambda = 7.7435e-09; f =    5.1900000e+302
lambda = 2.5812e-09; f =    5.1900000e+302
lambda = -6.2723e-07; f =     2.4559107e+14
lambda = -2.0908e-07; f =     2.4559117e+14
```

```
lambda = -6.9692e-08; f =      2.4559120e+14
lambda = -2.3231e-08; f =      2.4559121e+14
lambda = -7.7435e-09; f =      2.4559122e+14
lambda = -2.5812e-09; f =      2.4559122e+14
Norm of dx 5.5238e+09
======================================
 (1) New value of the obj. func. on iteration 0: 987610927977.674194336
 (2) Old value: 987610927977.674194336
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 3.0000
 (5) Current time of day: Thu Nov  2 09:23:06 2017


Convergence (improvement < crit 1.0000e-06) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 15133085258282932933317885952.000000000, Norm of gradient: 550146985055501.937500000
lambda =        1; f =     5.1900000e+302
lambda =   0.33333; f =      5.1900000e+302
lambda =   0.11111; f =      5.1900000e+302
lambda =  0.037037; f =      5.1900000e+302
lambda =  0.012346; f =      5.1900000e+302
lambda = 0.0041152; f =      5.1900000e+302
lambda = 0.0013717; f =      5.1900000e+302
lambda = 0.00045725; f =       5.1900000e+302
lambda = 0.00015242; f =       5.1900000e+302
lambda = 5.0805e-05; f =      5.1900000e+302
lambda = 1.6935e-05; f =      5.1900000e+302
lambda =  5.645e-06; f =      5.1900000e+302
lambda = 1.8817e-06; f =      5.1900000e+302
lambda = 6.2723e-07; f =      5.1900000e+302
lambda = 2.0908e-07; f =      5.1900000e+302
lambda = 6.9692e-08; f =      5.1900000e+302
lambda = 2.3231e-08; f =      5.1900000e+302
lambda = 7.7435e-09; f =      5.1900000e+302
lambda = 2.5812e-09; f =      5.1900000e+302
lambda = -6.2723e-07; f =       3.5355101e+14
lambda = -2.0908e-07; f =       3.5355113e+14
lambda = -6.9692e-08; f =       3.5355117e+14
lambda = -2.3231e-08; f =       3.5355119e+14
lambda = -7.7435e-09; f =       3.5355119e+14
lambda = -2.5812e-09; f =       3.5355119e+14
Norm of dx 5.5015e+09
======================================
 (1) New value of the obj. func. on iteration 0: 983809851319.440063477
 (2) Old value: 983809851319.440063477
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 3.0000
 (5) Current time of day: Thu Nov  2 09:23:10 2017


Convergence (improvement < crit 1.0000e-03) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement:     1.667900011, Norm of gradient:     577.563851179
lambda =        1; f =     1.0000000e+300
lambda =   0.33333; f =      1.0000000e+300
lambda =   0.11111; f =       9.8380985e+11
lambda =    0.2148; f =       9.8380985e+11
lambda =   0.41524; f =      1.0000000e+300
lambda =    0.2796; f =       9.8380985e+11
lambda =   0.35448; f =      1.0000000e+300
lambda =   0.30744; f =      1.0000000e+300
lambda =   0.28227; f =       9.8380985e+11
lambda =   0.29711; f =      1.0000000e+300
lambda =   0.28812; f =      1.0000000e+300
lambda =   0.28285; f =       9.8380985e+11
lambda =     0.286; f =     1.0000000e+300
Norm of dx  0.0057756
======= Random search takes place now. =======
Cliff.  Perturbing search direction.
```

Predicted improvement: 1.929965075, Norm of gradient: 577.563851179
lambda =   1; f =   1.0000000e+300
lambda =   0.33333; f =   1.0000000e+300
lambda =   0.11111; f =   9.8380985e+11
lambda =   0.2148; f =   9.8380985e+11
lambda =   0.41524; f =   1.0000000e+300
lambda =   0.2796; f =   1.0000000e+300
lambda =   0.22054; f =   9.8380985e+11
lambda =   0.25428; f =   1.0000000e+300
lambda =   0.23346; f =   9.8380985e+11
lambda =   0.24574; f =   9.8380985e+11
lambda =   0.25866; f =   1.0000000e+300
lambda =   0.25083; f =   1.0000000e+300
lambda =   0.24624; f =   9.8380985e+11
lambda =   0.24899; f =   1.0000000e+300
Norm of dx 0.0067029
Cliff again. Try traversing.
Predicted improvement: 1548.065257992, Norm of gradient: 55.642883786
lambda =   1; f =   1.0000000e+300
lambda =   0.33333; f =   1.0000000e+300
lambda =   0.11111; f =   1.0000000e+300
lambda = 0.037037; f =   1.0000000e+300
lambda = 0.012346; f =   1.0000000e+300
lambda = 0.0041152; f =   1.0000000e+300
lambda = 0.0013717; f =   1.0000000e+300
lambda = 0.00045725; f =   1.0000000e+300
lambda = 0.00015242; f =   1.0000000e+300
lambda = 5.0805e-05; f =   9.8380985e+11
lambda = 9.8216e-05; f =   9.8380985e+11
lambda = 0.00018987; f =   1.0000000e+300
lambda = 0.00012785; f =   1.0000000e+300
lambda = 0.00010084; f =   9.8380985e+11
lambda = 0.00011627; f =   9.8380985e+11
lambda = 0.00013406; f =   1.0000000e+300
lambda = 0.00012308; f =   9.8380985e+11
lambda = 0.00012956; f =   1.0000000e+300
lambda = 0.00012563; f =   9.8380985e+11
lambda = 0.00012797; f =   1.0000000e+300
lambda = 0.00012656; f =   9.8380985e+11
Norm of dx   55.643
======================================
 (1) New value of the obj. func. on iteration 0: 983809851318.489990234
 (2) Old value: 983809851319.440063477
 (3) Downhill improvement: 0.950073242
 (4) Seconds to complete one iteration: 0.0000
 (5) Current time of day: Thu Nov 2 09:23:10 2017

Warning: Back adjustment of stepsize didn't finish.
Predicted improvement: 1.671614125, Norm of gradient: 578.206559176
lambda =   1; f =   1.0000000e+300
lambda =   0.33333; f =   1.0000000e+300
lambda =   0.11111; f =   1.0000000e+300
lambda = 0.037037; f =   1.0000000e+300
lambda = 0.012346; f =   1.0000000e+300
lambda = 0.0041152; f =   1.0000000e+300
lambda = 0.0013717; f =   9.8380985e+11
Norm of dx 0.0057821
======================================
 (1) New value of the obj. func. on iteration 1: 983809851318.485595703
 (2) Old value: 983809851318.489990234
 (3) Downhill improvement: 0.004394531
 (4) Seconds to complete one iteration: 0.0000
 (5) Current time of day: Thu Nov 2 09:23:10 2017

Predicted improvement: 1.657875255, Norm of gradient: 575.825538640
lambda =   1; f =   1.0000000e+300
lambda =   0.33333; f =   1.0000000e+300
lambda =   0.11111; f =   1.0000000e+300

```
lambda =  0.037037; f =      1.0000000e+300
lambda =  0.012346; f =      1.0000000e+300
lambda = 0.0041152; f =      1.0000000e+300
lambda = 0.0013717; f =      1.0000000e+300
lambda = 0.00045725; f =      1.0000000e+300
lambda = 0.00015242; f =       9.8380985e+11
lambda = 0.00029465; f =      1.0000000e+300
lambda =  0.0001984; f =      1.0000000e+300
lambda = 0.00015649; f =       9.8380985e+11
lambda = 0.00018043; f =      1.0000000e+300
lambda = 0.00016566; f =       9.8380985e+11
lambda = 0.00017437; f =      1.0000000e+300
lambda = 0.00016909; f =      1.0000000e+300
lambda = 0.00016397; f =       9.8380985e+11
lambda = 0.00016702; f =      1.0000000e+300
lambda = 0.00016518; f =       9.8380985e+11
Norm of dx  0.0057583
======= Random search takes place now. =======
Cliff.  Perturbing search direction.
Predicted improvement:     2.752558803, Norm of gradient:     575.825538640
lambda =        1; f =      1.0000000e+300
lambda =    0.33333; f =      1.0000000e+300
lambda =    0.11111; f =      1.0000000e+300
lambda =   0.037037; f =      1.0000000e+300
lambda =   0.012346; f =      1.0000000e+300
lambda =  0.0041152; f =      1.0000000e+300
lambda =  0.0013717; f =      1.0000000e+300
lambda = 0.00045725; f =      1.0000000e+300
lambda = 0.00015242; f =      1.0000000e+300
lambda = 5.0805e-05; f =       9.8380985e+11
lambda = 9.8216e-05; f =       9.8380985e+11
lambda = 0.00018987; f =      1.0000000e+300
lambda = 0.00012785; f =      1.0000000e+300
lambda = 0.00010084; f =      1.0000000e+300
lambda = 9.8996e-05; f =       9.8380985e+11
lambda =  0.0001001; f =      1.0000000e+300
Norm of dx  0.0095732
Cliff again.  Try traversing.
Norm of dx        0
======================================
 (1) New value of the obj. func. on iteration 2: 983809851318.484985352
 (2) Old value: 983809851318.485595703
 (3) Downhill improvement: 0.000610352
 (4) Seconds to complete one iteration: 0.0000
 (5) Current time of day: Thu Nov  2 09:23:10 2017


Convergence (improvement < crit 1.0000e-03) with return code 4.

Warning: Forth adjustment of stepsize didn't finish.
Predicted improvement: 15133085258282287949176832.000000000, Norm of gradient: 550146985055500.937500000
lambda =        1; f =      5.1900000e+302
lambda =    0.33333; f =      5.1900000e+302
lambda =    0.11111; f =      5.1900000e+302
lambda =   0.037037; f =      5.1900000e+302
lambda =   0.012346; f =      5.1900000e+302
lambda =  0.0041152; f =      5.1900000e+302
lambda =  0.0013717; f =      5.1900000e+302
lambda = 0.00045725; f =      5.1900000e+302
lambda = 0.00015242; f =      5.1900000e+302
lambda = 5.0805e-05; f =      5.1900000e+302
lambda = 1.6935e-05; f =      5.1900000e+302
lambda =  5.645e-06; f =      5.1900000e+302
lambda = 1.8817e-06; f =      5.1900000e+302
lambda = 6.2723e-07; f =      5.1900000e+302
lambda = 2.0908e-07; f =      5.1900000e+302
lambda = 6.9692e-08; f =      5.1900000e+302
lambda = 2.3231e-08; f =      5.1900000e+302
lambda = 7.7435e-09; f =      5.1900000e+302
lambda = 2.5812e-09; f =      5.1900000e+302
lambda = -6.2723e-07; f =       3.5355101e+14
```

```
lambda = -2.0908e-07; f =     3.5355113e+14
lambda = -6.9692e-08; f =     3.5355117e+14
lambda = -2.3231e-08; f =     3.5355119e+14
lambda = -7.7435e-09; f =     3.5355119e+14
lambda = -2.5812e-09; f =     3.5355119e+14
Norm of dx 5.5015e+09
=====================================
 (1) New value of the obj. func. on iteration 0: 983809851318.484985352
 (2) Old value: 983809851318.484985352
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 3.0000
 (5) Current time of day: Thu Nov  2 09:23:14 2017


Convergence (improvement < crit 1.0000e-03) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement:     1.664463431, Norm of gradient:     576.968531316
lambda =        1; f =     1.0000000e+300
lambda =   0.33333; f =     1.0000000e+300
lambda =   0.11111; f =     1.0000000e+300
lambda =   0.037037; f =     1.0000000e+300
lambda =   0.012346; f =     1.0000000e+300
lambda =  0.0041152; f =     1.0000000e+300
lambda =  0.0013717; f =     1.0000000e+300
lambda = 0.00045725; f =     1.0000000e+300
lambda = 0.00015242; f =     1.0000000e+300
lambda = 5.0805e-05; f =     1.0000000e+300
lambda = 1.6935e-05; f =     1.0000000e+300
lambda =  5.645e-06; f =     9.8380985e+11
lambda = 1.8817e-06; f =     9.8380985e+11
lambda = 6.2723e-07; f =     9.8380985e+11
lambda = 2.0908e-07; f =     9.8380985e+11
lambda = 6.9692e-08; f =     9.8380985e+11
lambda = 2.3231e-08; f =     9.8380985e+11
lambda = 7.7435e-09; f =     9.8380985e+11
lambda = 2.5812e-09; f =     9.8380985e+11
lambda = -6.2723e-07; f =     9.8380985e+11
lambda = -2.0908e-07; f =     9.8380985e+11
lambda = -6.9692e-08; f =     9.8380985e+11
lambda = -2.3231e-08; f =     9.8380985e+11
lambda = -7.7435e-09; f =     9.8380985e+11
lambda = -2.5812e-09; f =     9.8380985e+11
Norm of dx  0.0057697
=====================================
 (1) New value of the obj. func. on iteration 0: 983809851318.484985352
 (2) Old value: 983809851318.484985352
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 0.0000
 (5) Current time of day: Thu Nov  2 09:23:14 2017


Convergence (improvement < crit 1.0000e-03) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 15133085252828287949176832.000000000, Norm of gradient: 550146985055500.937500000
lambda =        1; f =     5.1900000e+302
lambda =   0.33333; f =     5.1900000e+302
lambda =   0.11111; f =     5.1900000e+302
lambda =   0.037037; f =     5.1900000e+302
lambda =   0.012346; f =     5.1900000e+302
lambda =  0.0041152; f =     5.1900000e+302
lambda =  0.0013717; f =     5.1900000e+302
lambda = 0.00045725; f =     5.1900000e+302
lambda = 0.00015242; f =     5.1900000e+302
lambda = 5.0805e-05; f =     5.1900000e+302
lambda = 1.6935e-05; f =     5.1900000e+302
lambda =  5.645e-06; f =     5.1900000e+302
lambda = 1.8817e-06; f =     5.1900000e+302
lambda = 6.2723e-07; f =     5.1900000e+302
lambda = 2.0908e-07; f =     5.1900000e+302
```

```
lambda = 6.9692e-08; f =      5.1900000e+302
lambda = 2.3231e-08; f =      5.1900000e+302
lambda = 7.7435e-09; f =      5.1900000e+302
lambda = 2.5812e-09; f =      5.1900000e+302
lambda = -6.2723e-07; f =       3.5355101e+14
lambda = -2.0908e-07; f =       3.5355113e+14
lambda = -6.9692e-08; f =       3.5355117e+14
lambda = -2.3231e-08; f =       3.5355119e+14
lambda = -7.7435e-09; f =       3.5355119e+14
lambda = -2.5812e-09; f =       3.5355119e+14
Norm of dx 5.5015e+09
=====================================
 (1) New value of the obj. func. on iteration 0: 983809851318.484985352
 (2) Old value: 983809851318.484985352
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 3.0000
 (5) Current time of day: Thu Nov  2 09:23:18 2017


Convergence (improvement < crit 1.0000e-03) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 15133085258282879491766832.000000000, Norm of gradient: 550146985055500.937500000
lambda =        1; f =      5.1900000e+302
lambda =   0.33333; f =      5.1900000e+302
lambda =   0.11111; f =      5.1900000e+302
lambda =  0.037037; f =      5.1900000e+302
lambda =  0.012346; f =      5.1900000e+302
lambda = 0.0041152; f =      5.1900000e+302
lambda = 0.0013717; f =      5.1900000e+302
lambda = 0.00045725; f =       5.1900000e+302
lambda = 0.00015242; f =       5.1900000e+302
lambda = 5.0805e-05; f =      5.1900000e+302
lambda = 1.6935e-05; f =      5.1900000e+302
lambda =  5.645e-06; f =      5.1900000e+302
lambda = 1.8817e-06; f =      5.1900000e+302
lambda = 6.2723e-07; f =      5.1900000e+302
lambda = 2.0908e-07; f =      5.1900000e+302
lambda = 6.9692e-08; f =      5.1900000e+302
lambda = 2.3231e-08; f =      5.1900000e+302
lambda = 7.7435e-09; f =      5.1900000e+302
lambda = 2.5812e-09; f =      5.1900000e+302
lambda = -6.2723e-07; f =       3.5355101e+14
lambda = -2.0908e-07; f =       3.5355113e+14
lambda = -6.9692e-08; f =       3.5355117e+14
lambda = -2.3231e-08; f =       3.5355119e+14
lambda = -7.7435e-09; f =       3.5355119e+14
lambda = -2.5812e-09; f =       3.5355119e+14
Norm of dx 5.5015e+09
=====================================
 (1) New value of the obj. func. on iteration 0: 983809851318.484985352
 (2) Old value: 983809851318.484985352
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 3.0000
 (5) Current time of day: Thu Nov  2 09:23:22 2017


Convergence (improvement < crit 1.0000e-04) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement:    1.664463431, Norm of gradient:    576.968531316
lambda =        1; f =      1.0000000e+300
lambda =   0.33333; f =      1.0000000e+300
lambda =   0.11111; f =      1.0000000e+300
lambda =  0.037037; f =      1.0000000e+300
lambda =  0.012346; f =      1.0000000e+300
lambda = 0.0041152; f =      1.0000000e+300
lambda = 0.0013717; f =      1.0000000e+300
lambda = 0.00045725; f =       1.0000000e+300
lambda = 0.00015242; f =       1.0000000e+300
lambda = 5.0805e-05; f =      1.0000000e+300
```

```
lambda = 1.6935e-05; f =    1.0000000e+300
lambda = 5.645e-06; f =    9.8380985e+11
lambda = 1.8817e-06; f =    9.8380985e+11
lambda = 6.2723e-07; f =    9.8380985e+11
lambda = 2.0908e-07; f =    9.8380985e+11
lambda = 6.9692e-08; f =    9.8380985e+11
lambda = 2.3231e-08; f =    9.8380985e+11
lambda = 7.7435e-09; f =    9.8380985e+11
lambda = 2.5812e-09; f =    9.8380985e+11
lambda = -6.2723e-07; f =    9.8380985e+11
lambda = -2.0908e-07; f =    9.8380985e+11
lambda = -6.9692e-08; f =    9.8380985e+11
lambda = -2.3231e-08; f =    9.8380985e+11
lambda = -7.7435e-09; f =    9.8380985e+11
lambda = -2.5812e-09; f =    9.8380985e+11
Norm of dx  0.0057697
=======================================
 (1) New value of the obj. func. on iteration 0: 983809851318.484985352
 (2) Old value: 983809851318.484985352
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 0.0000
 (5) Current time of day: Thu Nov  2 09:23:22 2017


Convergence (improvement < crit 1.0000e-04) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 15133085258282879491176832.000000000, Norm of gradient: 550146985055500.937500000
lambda =        1; f =    5.1900000e+302
lambda =   0.33333; f =    5.1900000e+302
lambda =   0.11111; f =    5.1900000e+302
lambda =  0.037037; f =    5.1900000e+302
lambda =  0.012346; f =    5.1900000e+302
lambda = 0.0041152; f =    5.1900000e+302
lambda = 0.0013717; f =    5.1900000e+302
lambda = 0.00045725; f =    5.1900000e+302
lambda = 0.00015242; f =    5.1900000e+302
lambda = 5.0805e-05; f =    5.1900000e+302
lambda = 1.6935e-05; f =    5.1900000e+302
lambda = 5.645e-06; f =    5.1900000e+302
lambda = 1.8817e-06; f =    5.1900000e+302
lambda = 6.2723e-07; f =    5.1900000e+302
lambda = 2.0908e-07; f =    5.1900000e+302
lambda = 6.9692e-08; f =    5.1900000e+302
lambda = 2.3231e-08; f =    5.1900000e+302
lambda = 7.7435e-09; f =    5.1900000e+302
lambda = 2.5812e-09; f =    5.1900000e+302
lambda = -6.2723e-07; f =    3.5355101e+14
lambda = -2.0908e-07; f =    3.5355113e+14
lambda = -6.9692e-08; f =    3.5355117e+14
lambda = -2.3231e-08; f =    3.5355119e+14
lambda = -7.7435e-09; f =    3.5355119e+14
lambda = -2.5812e-09; f =    3.5355119e+14
Norm of dx 5.5015e+09
=======================================
 (1) New value of the obj. func. on iteration 0: 983809851318.484985352
 (2) Old value: 983809851318.484985352
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 3.0000
 (5) Current time of day: Thu Nov  2 09:23:26 2017


Convergence (improvement < crit 1.0000e-04) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 15133085258282879491176832.000000000, Norm of gradient: 550146985055500.937500000
lambda =        1; f =    5.1900000e+302
lambda =   0.33333; f =    5.1900000e+302
lambda =   0.11111; f =    5.1900000e+302
lambda =  0.037037; f =    5.1900000e+302
lambda =  0.012346; f =    5.1900000e+302
```

```
lambda =  0.0041152; f =      5.1900000e+302
lambda =  0.0013717; f =      5.1900000e+302
lambda = 0.00045725; f =      5.1900000e+302
lambda = 0.00015242; f =      5.1900000e+302
lambda = 5.0805e-05; f =      5.1900000e+302
lambda = 1.6935e-05; f =      5.1900000e+302
lambda =  5.645e-06; f =      5.1900000e+302
lambda = 1.8817e-06; f =      5.1900000e+302
lambda = 6.2723e-07; f =      5.1900000e+302
lambda = 2.0908e-07; f =      5.1900000e+302
lambda = 6.9692e-08; f =      5.1900000e+302
lambda = 2.3231e-08; f =      5.1900000e+302
lambda = 7.7435e-09; f =      5.1900000e+302
lambda = 2.5812e-09; f =      5.1900000e+302
lambda = -6.2723e-07; f =      3.5355101e+14
lambda = -2.0908e-07; f =      3.5355113e+14
lambda = -6.9692e-08; f =      3.5355117e+14
lambda = -2.3231e-08; f =      3.5355119e+14
lambda = -7.7435e-09; f =      3.5355119e+14
lambda = -2.5812e-09; f =      3.5355119e+14
Norm of dx 5.5015e+09
=====================================
 (1) New value of the obj. func. on iteration 0: 983809851318.484985352
 (2) Old value: 983809851318.484985352
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 3.0000
 (5) Current time of day: Thu Nov  2 09:23:30 2017


Convergence (improvement < crit 1.0000e-05) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement:     1.664463431, Norm of gradient:     576.968531316
lambda =        1; f =      1.0000000e+300
lambda =   0.33333; f =      1.0000000e+300
lambda =   0.11111; f =      1.0000000e+300
lambda =  0.037037; f =      1.0000000e+300
lambda =  0.012346; f =      1.0000000e+300
lambda =  0.0041152; f =      1.0000000e+300
lambda =  0.0013717; f =      1.0000000e+300
lambda = 0.00045725; f =      1.0000000e+300
lambda = 0.00015242; f =      1.0000000e+300
lambda = 5.0805e-05; f =      1.0000000e+300
lambda = 1.6935e-05; f =      1.0000000e+300
lambda =  5.645e-06; f =      9.8380985e+11
lambda = 1.8817e-06; f =      9.8380985e+11
lambda = 6.2723e-07; f =      9.8380985e+11
lambda = 2.0908e-07; f =      9.8380985e+11
lambda = 6.9692e-08; f =      9.8380985e+11
lambda = 2.3231e-08; f =      9.8380985e+11
lambda = 7.7435e-09; f =      9.8380985e+11
lambda = 2.5812e-09; f =      9.8380985e+11
lambda = -6.2723e-07; f =      9.8380985e+11
lambda = -2.0908e-07; f =      9.8380985e+11
lambda = -6.9692e-08; f =      9.8380985e+11
lambda = -2.3231e-08; f =      9.8380985e+11
lambda = -7.7435e-09; f =      9.8380985e+11
lambda = -2.5812e-09; f =      9.8380985e+11
Norm of dx  0.0057697
=====================================
 (1) New value of the obj. func. on iteration 0: 983809851318.484985352
 (2) Old value: 983809851318.484985352
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 0.0000
 (5) Current time of day: Thu Nov  2 09:23:30 2017


Convergence (improvement < crit 1.0000e-05) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 15133085258282879491176832.000000000, Norm of gradient: 550146985055500.937500000
```

```
lambda =        1; f =      5.1900000e+302
lambda =   0.33333; f =      5.1900000e+302
lambda =   0.11111; f =      5.1900000e+302
lambda =  0.037037; f =      5.1900000e+302
lambda =  0.012346; f =      5.1900000e+302
lambda =  0.0041152; f =     5.1900000e+302
lambda =  0.0013717; f =     5.1900000e+302
lambda = 0.00045725; f =      5.1900000e+302
lambda = 0.00015242; f =      5.1900000e+302
lambda = 5.0805e-05; f =     5.1900000e+302
lambda = 1.6935e-05; f =     5.1900000e+302
lambda =  5.645e-06; f =      5.1900000e+302
lambda = 1.8817e-06; f =     5.1900000e+302
lambda = 6.2723e-07; f =     5.1900000e+302
lambda = 2.0908e-07; f =     5.1900000e+302
lambda = 6.9692e-08; f =     5.1900000e+302
lambda = 2.3231e-08; f =     5.1900000e+302
lambda = 7.7435e-09; f =     5.1900000e+302
lambda = 2.5812e-09; f =     5.1900000e+302
lambda = -6.2723e-07; f =       3.5355101e+14
lambda = -2.0908e-07; f =       3.5355113e+14
lambda = -6.9692e-08; f =       3.5355117e+14
lambda = -2.3231e-08; f =       3.5355119e+14
lambda = -7.7435e-09; f =       3.5355119e+14
lambda = -2.5812e-09; f =       3.5355119e+14
Norm of dx 5.5015e+09
======================================
 (1) New value of the obj. func. on iteration 0: 983809851318.484985352
 (2) Old value: 983809851318.484985352
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 3.0000
 (5) Current time of day: Thu Nov  2 09:23:34 2017


Convergence (improvement < crit 1.0000e-05) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 15133085258282287949176832.000000000, Norm of gradient: 550146985055500.937500000
lambda =        1; f =      5.1900000e+302
lambda =   0.33333; f =      5.1900000e+302
lambda =   0.11111; f =      5.1900000e+302
lambda =  0.037037; f =      5.1900000e+302
lambda =  0.012346; f =      5.1900000e+302
lambda =  0.0041152; f =     5.1900000e+302
lambda =  0.0013717; f =     5.1900000e+302
lambda = 0.00045725; f =      5.1900000e+302
lambda = 0.00015242; f =      5.1900000e+302
lambda = 5.0805e-05; f =     5.1900000e+302
lambda = 1.6935e-05; f =     5.1900000e+302
lambda =  5.645e-06; f =      5.1900000e+302
lambda = 1.8817e-06; f =     5.1900000e+302
lambda = 6.2723e-07; f =     5.1900000e+302
lambda = 2.0908e-07; f =     5.1900000e+302
lambda = 6.9692e-08; f =     5.1900000e+302
lambda = 2.3231e-08; f =     5.1900000e+302
lambda = 7.7435e-09; f =     5.1900000e+302
lambda = 2.5812e-09; f =     5.1900000e+302
lambda = -6.2723e-07; f =       3.5355101e+14
lambda = -2.0908e-07; f =       3.5355113e+14
lambda = -6.9692e-08; f =       3.5355117e+14
lambda = -2.3231e-08; f =       3.5355119e+14
lambda = -7.7435e-09; f =       3.5355119e+14
lambda = -2.5812e-09; f =       3.5355119e+14
Norm of dx 5.5015e+09
======================================
 (1) New value of the obj. func. on iteration 0: 983809851318.484985352
 (2) Old value: 983809851318.484985352
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 2.0000
 (5) Current time of day: Thu Nov  2 09:23:37 2017
```

Convergence (improvement < crit 1.0000e-06) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 1.664463431, Norm of gradient: 576.968531316
lambda =   1; f =   1.0000000e+300
lambda =   0.33333; f =   1.0000000e+300
lambda =   0.11111; f =   1.0000000e+300
lambda =   0.037037; f =   1.0000000e+300
lambda =   0.012346; f =   1.0000000e+300
lambda = 0.0041152; f =   1.0000000e+300
lambda = 0.0013717; f =   1.0000000e+300
lambda = 0.00045725; f =   1.0000000e+300
lambda = 0.00015242; f =   1.0000000e+300
lambda = 5.0805e-05; f =   1.0000000e+300
lambda = 1.6935e-05; f =   1.0000000e+300
lambda = 5.645e-06; f =   9.8380985e+11
lambda = 1.8817e-06; f =   9.8380985e+11
lambda = 6.2723e-07; f =   9.8380985e+11
lambda = 2.0908e-07; f =   9.8380985e+11
lambda = 6.9692e-08; f =   9.8380985e+11
lambda = 2.3231e-08; f =   9.8380985e+11
lambda = 7.7435e-09; f =   9.8380985e+11
lambda = 2.5812e-09; f =   9.8380985e+11
lambda = -6.2723e-07; f =   9.8380985e+11
lambda = -2.0908e-07; f =   9.8380985e+11
lambda = -6.9692e-08; f =   9.8380985e+11
lambda = -2.3231e-08; f =   9.8380985e+11
lambda = -7.7435e-09; f =   9.8380985e+11
lambda = -2.5812e-09; f =   9.8380985e+11
Norm of dx 0.0057697
=======================================
 (1) New value of the obj. func. on iteration 0: 983809851318.484985352
 (2) Old value: 983809851318.484985352
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 1.0000
 (5) Current time of day: Thu Nov 2 09:23:38 2017

Convergence (improvement < crit 1.0000e-06) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 15133085258228787949176832.000000000, Norm of gradient: 550146985055500.937500000
lambda =   1; f =   5.1900000e+302
lambda =   0.33333; f =   5.1900000e+302
lambda =   0.11111; f =   5.1900000e+302
lambda =   0.037037; f =   5.1900000e+302
lambda =   0.012346; f =   5.1900000e+302
lambda = 0.0041152; f =   5.1900000e+302
lambda = 0.0013717; f =   5.1900000e+302
lambda = 0.00045725; f =   5.1900000e+302
lambda = 0.00015242; f =   5.1900000e+302
lambda = 5.0805e-05; f =   5.1900000e+302
lambda = 1.6935e-05; f =   5.1900000e+302
lambda = 5.645e-06; f =   5.1900000e+302
lambda = 1.8817e-06; f =   5.1900000e+302
lambda = 6.2723e-07; f =   5.1900000e+302
lambda = 2.0908e-07; f =   5.1900000e+302
lambda = 6.9692e-08; f =   5.1900000e+302
lambda = 2.3231e-08; f =   5.1900000e+302
lambda = 7.7435e-09; f =   5.1900000e+302
lambda = 2.5812e-09; f =   5.1900000e+302
lambda = -6.2723e-07; f =   3.5355101e+14
lambda = -2.0908e-07; f =   3.5355113e+14
lambda = -6.9692e-08; f =   3.5355117e+14
lambda = -2.3231e-08; f =   3.5355119e+14
lambda = -7.7435e-09; f =   3.5355119e+14
lambda = -2.5812e-09; f =   3.5355119e+14
Norm of dx 5.5015e+09
=======================================
 (1) New value of the obj. func. on iteration 0: 983809851318.484985352

(2) Old value: 983809851318.484985352
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 2.0000
 (5) Current time of day: Thu Nov 2 09:23:41 2017

Convergence (improvement < crit 1.0000e-06) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 15133085258282287949176832.000000000, Norm of gradient: 550146985055500.937500000
lambda =   1; f =   5.1900000e+302
lambda =   0.33333; f =   5.1900000e+302
lambda =   0.11111; f =   5.1900000e+302
lambda = 0.037037; f =   5.1900000e+302
lambda = 0.012346; f =   5.1900000e+302
lambda = 0.0041152; f =   5.1900000e+302
lambda = 0.0013717; f =   5.1900000e+302
lambda = 0.00045725; f =   5.1900000e+302
lambda = 0.00015242; f =   5.1900000e+302
lambda = 5.0805e-05; f =   5.1900000e+302
lambda = 1.6935e-05; f =   5.1900000e+302
lambda = 5.645e-06; f =   5.1900000e+302
lambda = 1.8817e-06; f =   5.1900000e+302
lambda = 6.2723e-07; f =   5.1900000e+302
lambda = 2.0908e-07; f =   5.1900000e+302
lambda = 6.9692e-08; f =   5.1900000e+302
lambda = 2.3231e-08; f =   5.1900000e+302
lambda = 7.7435e-09; f =   5.1900000e+302
lambda = 2.5812e-09; f =   5.1900000e+302
lambda = -6.2723e-07; f =   3.5355101e+14
lambda = -2.0908e-07; f =   3.5355113e+14
lambda = -6.9692e-08; f =   3.5355117e+14
lambda = -2.3231e-08; f =   3.5355119e+14
lambda = -7.7435e-09; f =   3.5355119e+14
lambda = -2.5812e-09; f =   3.5355119e+14
Norm of dx 5.5015e+09
=====================================
 (1) New value of the obj. func. on iteration 0: 983809851318.484985352
 (2) Old value: 983809851318.484985352
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 2.0000
 (5) Current time of day: Thu Nov 2 09:23:45 2017

Convergence (improvement < crit 1.0000e-03) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 1.664463431, Norm of gradient: 576.968531316
lambda =   1; f =   1.0000000e+300
lambda =   0.33333; f =   1.0000000e+300
lambda =   0.11111; f =   1.0000000e+300
lambda = 0.037037; f =   1.0000000e+300
lambda = 0.012346; f =   1.0000000e+300
lambda = 0.0041152; f =   1.0000000e+300
lambda = 0.0013717; f =   1.0000000e+300
lambda = 0.00045725; f =   1.0000000e+300
lambda = 0.00015242; f =   1.0000000e+300
lambda = 5.0805e-05; f =   1.0000000e+300
lambda = 1.6935e-05; f =   1.0000000e+300
lambda = 5.645e-06; f =   9.8380985e+11
lambda = 1.8817e-06; f =   9.8380985e+11
lambda = 6.2723e-07; f =   9.8380985e+11
lambda = 2.0908e-07; f =   9.8380985e+11
lambda = 6.9692e-08; f =   9.8380985e+11
lambda = 2.3231e-08; f =   9.8380985e+11
lambda = 7.7435e-09; f =   9.8380985e+11
lambda = 2.5812e-09; f =   9.8380985e+11
lambda = -6.2723e-07; f =   9.8380985e+11
lambda = -2.0908e-07; f =   9.8380985e+11
lambda = -6.9692e-08; f =   9.8380985e+11
lambda = -2.3231e-08; f =   9.8380985e+11

```
lambda = -7.7435e-09; f =      9.8380985e+11
lambda = -2.5812e-09; f =      9.8380985e+11
Norm of dx  0.0057697
=====================================
 (1) New value of the obj. func. on iteration 0: 983809851318.484985352
 (2) Old value: 983809851318.484985352
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 0.0000
 (5) Current time of day: Thu Nov  2 09:23:45 2017


Convergence (improvement < crit 1.0000e-03) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 15133085258282879491176832.000000000, Norm of gradient: 550146985055500.937500000
lambda =        1; f =      5.1900000e+302
lambda =    0.33333; f =      5.1900000e+302
lambda =    0.11111; f =      5.1900000e+302
lambda =   0.037037; f =      5.1900000e+302
lambda =   0.012346; f =      5.1900000e+302
lambda =  0.0041152; f =      5.1900000e+302
lambda =  0.0013717; f =      5.1900000e+302
lambda = 0.00045725; f =      5.1900000e+302
lambda = 0.00015242; f =      5.1900000e+302
lambda = 5.0805e-05; f =      5.1900000e+302
lambda = 1.6935e-05; f =      5.1900000e+302
lambda =  5.645e-06; f =      5.1900000e+302
lambda = 1.8817e-06; f =      5.1900000e+302
lambda = 6.2723e-07; f =      5.1900000e+302
lambda = 2.0908e-07; f =      5.1900000e+302
lambda = 6.9692e-08; f =      5.1900000e+302
lambda = 2.3231e-08; f =      5.1900000e+302
lambda = 7.7435e-09; f =      5.1900000e+302
lambda = 2.5812e-09; f =      5.1900000e+302
lambda = -6.2723e-07; f =       3.5355101e+14
lambda = -2.0908e-07; f =       3.5355113e+14
lambda = -6.9692e-08; f =       3.5355117e+14
lambda = -2.3231e-08; f =       3.5355119e+14
lambda = -7.7435e-09; f =       3.5355119e+14
lambda = -2.5812e-09; f =       3.5355119e+14
Norm of dx 5.5015e+09
=====================================
 (1) New value of the obj. func. on iteration 0: 983809851318.484985352
 (2) Old value: 983809851318.484985352
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 2.0000
 (5) Current time of day: Thu Nov  2 09:23:49 2017


Convergence (improvement < crit 1.0000e-03) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 15133085258282879491176832.000000000, Norm of gradient: 550146985055500.937500000
lambda =        1; f =      5.1900000e+302
lambda =    0.33333; f =      5.1900000e+302
lambda =    0.11111; f =      5.1900000e+302
lambda =   0.037037; f =      5.1900000e+302
lambda =   0.012346; f =      5.1900000e+302
lambda =  0.0041152; f =      5.1900000e+302
lambda =  0.0013717; f =      5.1900000e+302
lambda = 0.00045725; f =      5.1900000e+302
lambda = 0.00015242; f =      5.1900000e+302
lambda = 5.0805e-05; f =      5.1900000e+302
lambda = 1.6935e-05; f =      5.1900000e+302
lambda =  5.645e-06; f =      5.1900000e+302
lambda = 1.8817e-06; f =      5.1900000e+302
lambda = 6.2723e-07; f =      5.1900000e+302
lambda = 2.0908e-07; f =      5.1900000e+302
lambda = 6.9692e-08; f =      5.1900000e+302
lambda = 2.3231e-08; f =      5.1900000e+302
lambda = 7.7435e-09; f =      5.1900000e+302
```

```
lambda = 2.5812e-09; f =      5.1900000e+302
lambda = -6.2723e-07; f =      3.5355101e+14
lambda = -2.0908e-07; f =      3.5355113e+14
lambda = -6.9692e-08; f =      3.5355117e+14
lambda = -2.3231e-08; f =      3.5355119e+14
lambda = -7.7435e-09; f =      3.5355119e+14
lambda = -2.5812e-09; f =      3.5355119e+14
Norm of dx 5.5015e+09
=======================================
 (1) New value of the obj. func. on iteration 0: 983809851318.484985352
 (2) Old value: 983809851318.484985352
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 2.0000
 (5) Current time of day: Thu Nov  2 09:23:53 2017


Convergence (improvement < crit 1.0000e-04) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement:      1.664463431, Norm of gradient:     576.968531316
lambda =        1; f =     1.0000000e+300
lambda =   0.33333; f =     1.0000000e+300
lambda =   0.11111; f =     1.0000000e+300
lambda =  0.037037; f =     1.0000000e+300
lambda =  0.012346; f =     1.0000000e+300
lambda = 0.0041152; f =     1.0000000e+300
lambda = 0.0013717; f =     1.0000000e+300
lambda = 0.00045725; f =     1.0000000e+300
lambda = 0.00015242; f =     1.0000000e+300
lambda = 5.0805e-05; f =     1.0000000e+300
lambda = 1.6935e-05; f =     1.0000000e+300
lambda = 5.645e-06; f =      9.8380985e+11
lambda = 1.8817e-06; f =      9.8380985e+11
lambda = 6.2723e-07; f =      9.8380985e+11
lambda = 2.0908e-07; f =      9.8380985e+11
lambda = 6.9692e-08; f =      9.8380985e+11
lambda = 2.3231e-08; f =      9.8380985e+11
lambda = 7.7435e-09; f =      9.8380985e+11
lambda = 2.5812e-09; f =      9.8380985e+11
lambda = -6.2723e-07; f =      9.8380985e+11
lambda = -2.0908e-07; f =      9.8380985e+11
lambda = -6.9692e-08; f =      9.8380985e+11
lambda = -2.3231e-08; f =      9.8380985e+11
lambda = -7.7435e-09; f =      9.8380985e+11
lambda = -2.5812e-09; f =      9.8380985e+11
Norm of dx  0.0057697
=======================================
 (1) New value of the obj. func. on iteration 0: 983809851318.484985352
 (2) Old value: 983809851318.484985352
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 0.0000
 (5) Current time of day: Thu Nov  2 09:23:53 2017


Convergence (improvement < crit 1.0000e-04) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 15133085258282879491768832.000000000, Norm of gradient: 550146985055500.937500000
lambda =        1; f =     5.1900000e+302
lambda =   0.33333; f =     5.1900000e+302
lambda =   0.11111; f =     5.1900000e+302
lambda =  0.037037; f =     5.1900000e+302
lambda =  0.012346; f =     5.1900000e+302
lambda = 0.0041152; f =     5.1900000e+302
lambda = 0.0013717; f =     5.1900000e+302
lambda = 0.00045725; f =     5.1900000e+302
lambda = 0.00015242; f =     5.1900000e+302
lambda = 5.0805e-05; f =     5.1900000e+302
lambda = 1.6935e-05; f =     5.1900000e+302
lambda = 5.645e-06; f =      5.1900000e+302
lambda = 1.8817e-06; f =      5.1900000e+302
```

```
lambda = 6.2723e-07; f =      5.1900000e+302
lambda = 2.0908e-07; f =      5.1900000e+302
lambda = 6.9692e-08; f =      5.1900000e+302
lambda = 2.3231e-08; f =      5.1900000e+302
lambda = 7.7435e-09; f =      5.1900000e+302
lambda = 2.5812e-09; f =      5.1900000e+302
lambda = -6.2723e-07; f =      3.5355101e+14
lambda = -2.0908e-07; f =      3.5355113e+14
lambda = -6.9692e-08; f =      3.5355117e+14
lambda = -2.3231e-08; f =      3.5355119e+14
lambda = -7.7435e-09; f =      3.5355119e+14
lambda = -2.5812e-09; f =      3.5355119e+14
Norm of dx 5.5015e+09
=======================================
 (1) New value of the obj. func. on iteration 0: 983809851318.484985352
 (2) Old value: 983809851318.484985352
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 2.0000
 (5) Current time of day: Thu Nov  2 09:23:57 2017


Convergence (improvement < crit 1.0000e-04) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 15133085258287949176832.000000000, Norm of gradient: 550146985055500.937500000
lambda =       1; f =      5.1900000e+302
lambda =    0.33333; f =      5.1900000e+302
lambda =    0.11111; f =      5.1900000e+302
lambda =   0.037037; f =      5.1900000e+302
lambda =   0.012346; f =      5.1900000e+302
lambda =  0.0041152; f =      5.1900000e+302
lambda =  0.0013717; f =      5.1900000e+302
lambda = 0.00045725; f =       5.1900000e+302
lambda = 0.00015242; f =       5.1900000e+302
lambda = 5.0805e-05; f =      5.1900000e+302
lambda = 1.6935e-05; f =      5.1900000e+302
lambda =  5.645e-06; f =      5.1900000e+302
lambda = 1.8817e-06; f =      5.1900000e+302
lambda = 6.2723e-07; f =      5.1900000e+302
lambda = 2.0908e-07; f =      5.1900000e+302
lambda = 6.9692e-08; f =      5.1900000e+302
lambda = 2.3231e-08; f =      5.1900000e+302
lambda = 7.7435e-09; f =      5.1900000e+302
lambda = 2.5812e-09; f =      5.1900000e+302
lambda = -6.2723e-07; f =      3.5355101e+14
lambda = -2.0908e-07; f =      3.5355113e+14
lambda = -6.9692e-08; f =      3.5355117e+14
lambda = -2.3231e-08; f =      3.5355119e+14
lambda = -7.7435e-09; f =      3.5355119e+14
lambda = -2.5812e-09; f =      3.5355119e+14
Norm of dx 5.5015e+09
=======================================
 (1) New value of the obj. func. on iteration 0: 983809851318.484985352
 (2) Old value: 983809851318.484985352
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 3.0000
 (5) Current time of day: Thu Nov  2 09:24:01 2017


Convergence (improvement < crit 1.0000e-05) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement:     1.664463431, Norm of gradient:     576.968531316
lambda =       1; f =     1.0000000e+300
lambda =    0.33333; f =     1.0000000e+300
lambda =    0.11111; f =     1.0000000e+300
lambda =   0.037037; f =     1.0000000e+300
lambda =   0.012346; f =     1.0000000e+300
lambda =  0.0041152; f =     1.0000000e+300
lambda =  0.0013717; f =     1.0000000e+300
lambda = 0.00045725; f =      1.0000000e+300
```

```
lambda = 0.00015242; f =      1.0000000e+300
lambda = 5.0805e-05; f =      1.0000000e+300
lambda = 1.6935e-05; f =      1.0000000e+300
lambda =  5.645e-06; f =      9.8380985e+11
lambda = 1.8817e-06; f =      9.8380985e+11
lambda = 6.2723e-07; f =      9.8380985e+11
lambda = 2.0908e-07; f =      9.8380985e+11
lambda = 6.9692e-08; f =      9.8380985e+11
lambda = 2.3231e-08; f =      9.8380985e+11
lambda = 7.7435e-09; f =      9.8380985e+11
lambda = 2.5812e-09; f =      9.8380985e+11
lambda = -6.2723e-07; f =      9.8380985e+11
lambda = -2.0908e-07; f =      9.8380985e+11
lambda = -6.9692e-08; f =      9.8380985e+11
lambda = -2.3231e-08; f =      9.8380985e+11
lambda = -7.7435e-09; f =      9.8380985e+11
lambda = -2.5812e-09; f =      9.8380985e+11
Norm of dx  0.0057697
========================================
 (1) New value of the obj. func. on iteration 0: 983809851318.484985352
 (2) Old value: 983809851318.484985352
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 0.0000
 (5) Current time of day: Thu Nov  2 09:24:01 2017


Convergence (improvement < crit 1.0000e-05) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 15133085258282879491176832.000000000, Norm of gradient: 550146985055500.937500000
lambda =        1; f =      5.1900000e+302
lambda =   0.33333; f =      5.1900000e+302
lambda =   0.11111; f =      5.1900000e+302
lambda =  0.037037; f =      5.1900000e+302
lambda =  0.012346; f =      5.1900000e+302
lambda =  0.0041152; f =      5.1900000e+302
lambda =  0.0013717; f =      5.1900000e+302
lambda = 0.00045725; f =      5.1900000e+302
lambda = 0.00015242; f =      5.1900000e+302
lambda = 5.0805e-05; f =      5.1900000e+302
lambda = 1.6935e-05; f =      5.1900000e+302
lambda =  5.645e-06; f =      5.1900000e+302
lambda = 1.8817e-06; f =      5.1900000e+302
lambda = 6.2723e-07; f =      5.1900000e+302
lambda = 2.0908e-07; f =      5.1900000e+302
lambda = 6.9692e-08; f =      5.1900000e+302
lambda = 2.3231e-08; f =      5.1900000e+302
lambda = 7.7435e-09; f =      5.1900000e+302
lambda = 2.5812e-09; f =      5.1900000e+302
lambda = -6.2723e-07; f =      3.5355101e+14
lambda = -2.0908e-07; f =      3.5355113e+14
lambda = -6.9692e-08; f =      3.5355117e+14
lambda = -2.3231e-08; f =      3.5355119e+14
lambda = -7.7435e-09; f =      3.5355119e+14
lambda = -2.5812e-09; f =      3.5355119e+14
Norm of dx 5.5015e+09
========================================
 (1) New value of the obj. func. on iteration 0: 983809851318.484985352
 (2) Old value: 983809851318.484985352
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 3.0000
 (5) Current time of day: Thu Nov  2 09:24:05 2017


Convergence (improvement < crit 1.0000e-05) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 15133085258282879491176832.000000000, Norm of gradient: 550146985055500.937500000
lambda =        1; f =      5.1900000e+302
lambda =   0.33333; f =      5.1900000e+302
lambda =   0.11111; f =      5.1900000e+302
```

```
lambda =  0.037037; f =     5.1900000e+302
lambda =  0.012346; f =     5.1900000e+302
lambda = 0.0041152; f =     5.1900000e+302
lambda = 0.0013717; f =     5.1900000e+302
lambda = 0.00045725; f =     5.1900000e+302
lambda = 0.00015242; f =     5.1900000e+302
lambda = 5.0805e-05; f =     5.1900000e+302
lambda = 1.6935e-05; f =     5.1900000e+302
lambda =  5.645e-06; f =     5.1900000e+302
lambda = 1.8817e-06; f =     5.1900000e+302
lambda = 6.2723e-07; f =     5.1900000e+302
lambda = 2.0908e-07; f =     5.1900000e+302
lambda = 6.9692e-08; f =     5.1900000e+302
lambda = 2.3231e-08; f =     5.1900000e+302
lambda = 7.7435e-09; f =     5.1900000e+302
lambda = 2.5812e-09; f =     5.1900000e+302
lambda = -6.2723e-07; f =     3.5355101e+14
lambda = -2.0908e-07; f =     3.5355113e+14
lambda = -6.9692e-08; f =     3.5355117e+14
lambda = -2.3231e-08; f =     3.5355119e+14
lambda = -7.7435e-09; f =     3.5355119e+14
lambda = -2.5812e-09; f =     3.5355119e+14
Norm of dx 5.5015e+09
======================================
 (1) New value of the obj. func. on iteration 0: 983809851318.484985352
 (2) Old value: 983809851318.484985352
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 3.0000
 (5) Current time of day: Thu Nov  2 09:24:09 2017


Convergence (improvement < crit 1.0000e-06) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement:     1.664463431, Norm of gradient:     576.968531316
lambda =        1; f =     1.0000000e+300
lambda =  0.33333; f =     1.0000000e+300
lambda =  0.11111; f =     1.0000000e+300
lambda =  0.037037; f =     1.0000000e+300
lambda =  0.012346; f =     1.0000000e+300
lambda = 0.0041152; f =     1.0000000e+300
lambda = 0.0013717; f =     1.0000000e+300
lambda = 0.00045725; f =     1.0000000e+300
lambda = 0.00015242; f =     1.0000000e+300
lambda = 5.0805e-05; f =     1.0000000e+300
lambda = 1.6935e-05; f =     1.0000000e+300
lambda =  5.645e-06; f =     9.8380985e+11
lambda = 1.8817e-06; f =     9.8380985e+11
lambda = 6.2723e-07; f =     9.8380985e+11
lambda = 2.0908e-07; f =     9.8380985e+11
lambda = 6.9692e-08; f =     9.8380985e+11
lambda = 2.3231e-08; f =     9.8380985e+11
lambda = 7.7435e-09; f =     9.8380985e+11
lambda = 2.5812e-09; f =     9.8380985e+11
lambda = -6.2723e-07; f =     9.8380985e+11
lambda = -2.0908e-07; f =     9.8380985e+11
lambda = -6.9692e-08; f =     9.8380985e+11
lambda = -2.3231e-08; f =     9.8380985e+11
lambda = -7.7435e-09; f =     9.8380985e+11
lambda = -2.5812e-09; f =     9.8380985e+11
Norm of dx  0.0057697
======================================
 (1) New value of the obj. func. on iteration 0: 983809851318.484985352
 (2) Old value: 983809851318.484985352
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 0.0000
 (5) Current time of day: Thu Nov  2 09:24:09 2017


Convergence (improvement < crit 1.0000e-06) with return code 6.
```

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 1513308525828287949176832.000000000, Norm of gradient: 550146985055500.937500000
lambda =   1; f =   5.1900000e+302
lambda =   0.33333; f =   5.1900000e+302
lambda =   0.11111; f =   5.1900000e+302
lambda = 0.037037; f =   5.1900000e+302
lambda = 0.012346; f =   5.1900000e+302
lambda = 0.0041152; f =   5.1900000e+302
lambda = 0.0013717; f =   5.1900000e+302
lambda = 0.00045725; f =   5.1900000e+302
lambda = 0.00015242; f =   5.1900000e+302
lambda = 5.0805e-05; f =   5.1900000e+302
lambda = 1.6935e-05; f =   5.1900000e+302
lambda = 5.645e-06; f =   5.1900000e+302
lambda = 1.8817e-06; f =   5.1900000e+302
lambda = 6.2723e-07; f =   5.1900000e+302
lambda = 2.0908e-07; f =   5.1900000e+302
lambda = 6.9692e-08; f =   5.1900000e+302
lambda = 2.3231e-08; f =   5.1900000e+302
lambda = 7.7435e-09; f =   5.1900000e+302
lambda = 2.5812e-09; f =   5.1900000e+302
lambda = -6.2723e-07; f =   3.5355101e+14
lambda = -2.0908e-07; f =   3.5355113e+14
lambda = -6.9692e-08; f =   3.5355117e+14
lambda = -2.3231e-08; f =   3.5355119e+14
lambda = -7.7435e-09; f =   3.5355119e+14
lambda = -2.5812e-09; f =   3.5355119e+14
Norm of dx 5.5015e+09
=======================================
 (1) New value of the obj. func. on iteration 0: 983809851318.484985352
 (2) Old value: 983809851318.484985352
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 3.0000
 (5) Current time of day: Thu Nov 2 09:24:13 2017

Convergence (improvement < crit 1.0000e-06) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 1558952238759954496880640.000000000, Norm of gradient: 558381990891531.937500000
lambda =   1; f =   5.1900000e+302
lambda =   0.33333; f =   5.1900000e+302
lambda =   0.11111; f =   5.1900000e+302
lambda = 0.037037; f =   5.1900000e+302
lambda = 0.012346; f =   5.1900000e+302
lambda = 0.0041152; f =   5.1900000e+302
lambda = 0.0013717; f =   5.1900000e+302
lambda = 0.00045725; f =   5.1900000e+302
lambda = 0.00015242; f =   5.1900000e+302
lambda = 5.0805e-05; f =   5.1900000e+302
lambda = 1.6935e-05; f =   5.1900000e+302
lambda = 5.645e-06; f =   5.1900000e+302
lambda = 1.8817e-06; f =   5.1900000e+302
lambda = 6.2723e-07; f =   5.1900000e+302
lambda = 2.0908e-07; f =   5.1900000e+302
lambda = 6.9692e-08; f =   5.1900000e+302
lambda = 2.3231e-08; f =   5.1900000e+302
lambda = 7.7435e-09; f =   5.1900000e+302
lambda = 2.5812e-09; f =   5.1900000e+302
lambda = -6.2723e-07; f =   2.2039001e+14
lambda = -2.0908e-07; f =   2.2038988e+14
lambda = -6.9692e-08; f =   2.2038983e+14
lambda = -2.3231e-08; f =   2.2038981e+14
lambda = -7.7435e-09; f =   2.2038981e+14
lambda = -2.5812e-09; f =   2.2038981e+14
Norm of dx 5.5838e+09
=======================================
 (1) New value of the obj. func. on iteration 0: 998315747260.185546875
 (2) Old value: 998315747260.185546875
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 3.0000

(5) Current time of day: Thu Nov 2 09:24:17 2017

Convergence (improvement < crit 1.0000e-03) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 1.661030576, Norm of gradient: 576.373242896
lambda =   1; f =   1.0000000e+300
lambda =   0.33333; f =   1.0000000e+300
lambda =   0.11111; f =   1.0000000e+300
lambda = 0.037037; f =   9.9831575e+11
lambda = 0.071599; f =   1.0000000e+300
lambda = 0.048211; f =   1.0000000e+300
lambda = 0.038027; f =   9.9831575e+11
lambda = 0.043845; f =   1.0000000e+300
lambda = 0.040255; f =   9.9831575e+11
lambda = 0.042372; f =   1.0000000e+300
lambda = 0.041089; f =   1.0000000e+300
lambda = 0.040338; f =   9.9831575e+11
lambda = 0.040787; f =   1.0000000e+300
Norm of dx 0.0057637
====== Random search takes place now. ======
Cliff. Perturbing search direction.
Predicted improvement: 1.847105739, Norm of gradient: 576.373242896
lambda =   1; f =   1.0000000e+300
lambda =   0.33333; f =   1.0000000e+300
lambda =   0.11111; f =   1.0000000e+300
lambda = 0.037037; f =   9.9831575e+11
lambda = 0.071599; f =   1.0000000e+300
lambda = 0.048211; f =   1.0000000e+300
lambda = 0.038027; f =   1.0000000e+300
lambda = 0.037331; f =   9.9831575e+11
lambda = 0.037747; f =   1.0000000e+300
Norm of dx 0.0064463
Cliff again. Try traversing.
Predicted improvement: 10785.145299233, Norm of gradient: 146.868276352
lambda =   1; f =   1.0000000e+300
lambda =   0.33333; f =   1.0000000e+300
lambda =   0.11111; f =   1.0000000e+300
lambda = 0.037037; f =   1.0000000e+300
lambda = 0.012346; f =   1.0000000e+300
lambda = 0.0041152; f =   1.0000000e+300
lambda = 0.0013717; f =   1.0000000e+300
lambda = 0.00045725; f =   1.0000000e+300
lambda = 0.00015242; f =   1.0000000e+300
lambda = 5.0805e-05; f =   1.0000000e+300
lambda = 1.6935e-05; f =   9.9831575e+11
lambda = 3.2739e-05; f =   1.0000000e+300
lambda = 2.2044e-05; f =   9.9831575e+11
lambda = 2.7948e-05; f =   1.0000000e+300
lambda = 2.4239e-05; f =   9.9831575e+11
lambda = 2.6401e-05; f =   1.0000000e+300
lambda = 2.5082e-05; f =   1.0000000e+300
lambda = 2.4322e-05; f =   9.9831575e+11
lambda = 2.4775e-05; f =   9.9831575e+11
lambda = 2.5237e-05; f =   1.0000000e+300
lambda = 2.4959e-05; f =   1.0000000e+300
Norm of dx   146.87
=======================================
 (1) New value of the obj. func. on iteration 0: 998315747259.650146484
 (2) Old value: 998315747260.185546875
 (3) Downhill improvement: 0.535400391
 (4) Seconds to complete one iteration: 0.0000
 (5) Current time of day: Thu Nov 2 09:24:17 2017

Warning: Back adjustment of stepsize didn't finish.
Predicted improvement: 1.664459705, Norm of gradient: 576.967885649
lambda =   1; f =   1.0000000e+300
lambda =   0.33333; f =   1.0000000e+300

```
lambda =    0.11111; f =      1.0000000e+300
lambda =   0.037037; f =      1.0000000e+300
lambda =   0.012346; f =      1.0000000e+300
lambda =  0.0041152; f =      1.0000000e+300
lambda =  0.0013717; f =      1.0000000e+300
lambda = 0.00045725; f =       1.0000000e+300
lambda = 0.00015242; f =       1.0000000e+300
lambda = 5.0805e-05; f =        9.9831575e+11
Norm of dx  0.0057697
=======================================
 (1) New value of the obj. func. on iteration 1: 998315747259.650024414
 (2) Old value: 998315747259.650146484
 (3) Downhill improvement: 0.000122070
 (4) Seconds to complete one iteration: 0.0000
 (5) Current time of day: Thu Nov  2 09:24:17 2017


Convergence (improvement < crit 1.0000e-03) with return code 0.
Predicted improvement: 1558952238759954496880640.000000000, Norm of gradient: 558381990891531.937500000
lambda =         1; f =      5.1900000e+302
lambda =   0.33333; f =      5.1900000e+302
lambda =   0.11111; f =      5.1900000e+302
lambda =   0.037037; f =      5.1900000e+302
lambda =   0.012346; f =      5.1900000e+302
lambda =  0.0041152; f =      5.1900000e+302
lambda =  0.0013717; f =      5.1900000e+302
lambda = 0.00045725; f =       5.1900000e+302
lambda = 0.00015242; f =       5.1900000e+302
lambda = 5.0805e-05; f =       5.1900000e+302
lambda = 1.6935e-05; f =       5.1900000e+302
lambda =  5.645e-06; f =       5.1900000e+302
lambda = 1.8817e-06; f =       5.1900000e+302
lambda = 6.2723e-07; f =       5.1900000e+302
lambda = 2.0908e-07; f =       5.1900000e+302
lambda = 6.9692e-08; f =       5.1900000e+302
lambda = 2.3231e-08; f =       5.1900000e+302
lambda = 7.7435e-09; f =       5.1900000e+302
lambda = 2.5812e-09; f =       5.1900000e+302
lambda = -6.2723e-07; f =        2.2039001e+14
lambda = -2.0908e-07; f =        2.2038988e+14
lambda = -6.9692e-08; f =        2.2038983e+14
lambda = -2.3231e-08; f =        2.2038981e+14
lambda = -7.7435e-09; f =        2.2038981e+14
lambda = -2.5812e-09; f =        2.2038981e+14
Norm of dx 5.5838e+09
=======================================
 (1) New value of the obj. func. on iteration 0: 998315747259.650024414
 (2) Old value: 998315747259.650024414
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 3.0000
 (5) Current time of day: Thu Nov  2 09:24:21 2017


Convergence (improvement < crit 1.0000e-03) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement:     1.665836200, Norm of gradient:     577.206410241
lambda =         1; f =      1.0000000e+300
lambda =   0.33333; f =      1.0000000e+300
lambda =   0.11111; f =      1.0000000e+300
lambda =   0.037037; f =      1.0000000e+300
lambda =   0.012346; f =      1.0000000e+300
lambda =  0.0041152; f =      1.0000000e+300
lambda =  0.0013717; f =      1.0000000e+300
lambda = 0.00045725; f =       1.0000000e+300
lambda = 0.00015242; f =       1.0000000e+300
lambda = 5.0805e-05; f =      1.0000000e+300
lambda = 1.6935e-05; f =      1.0000000e+300
lambda =  5.645e-06; f =      1.0000000e+300
lambda = 1.8817e-06; f =        9.9831575e+11
lambda = 3.6376e-06; f =      1.0000000e+300
```

```
lambda = 2.4494e-06; f =      1.0000000e+300
lambda = 1.9319e-06; f =      9.9831575e+11
lambda = 2.2276e-06; f =      1.0000000e+300
lambda = 2.0452e-06; f =      9.9831575e+11
lambda = 2.1527e-06; f =      9.9831575e+11
lambda =  2.266e-06; f =      1.0000000e+300
lambda = 2.1973e-06; f =      1.0000000e+300
lambda = 2.1308e-06; f =      9.9831575e+11
lambda = 2.1705e-06; f =      9.9831575e+11
lambda = 2.2109e-06; f =      1.0000000e+300
lambda = 2.1865e-06; f =      1.0000000e+300
lambda = 2.1625e-06; f =      9.9831575e+11
Norm of dx  0.0057721
======= Random search takes place now. =======
Cliff.  Perturbing search direction.
Predicted improvement:      2.992677459, Norm of gradient:     577.206410241
lambda =        1; f =     1.0000000e+300
lambda =    0.33333; f =     1.0000000e+300
lambda =    0.11111; f =     1.0000000e+300
lambda =   0.037037; f =     1.0000000e+300
lambda =   0.012346; f =     1.0000000e+300
lambda =  0.0041152; f =     1.0000000e+300
lambda =  0.0013717; f =     1.0000000e+300
lambda = 0.00045725; f =      1.0000000e+300
lambda = 0.00015242; f =      1.0000000e+300
lambda = 5.0805e-05; f =     1.0000000e+300
lambda = 1.6935e-05; f =     1.0000000e+300
lambda =  5.645e-06; f =     1.0000000e+300
lambda = 1.8817e-06; f =     1.0000000e+300
lambda = 6.2723e-07; f =      9.9831575e+11
lambda = 1.2125e-06; f =     1.0000000e+300
lambda = 8.1646e-07; f =      9.9831575e+11
lambda = 1.0351e-06; f =      9.9831575e+11
lambda = 1.3123e-06; f =     1.0000000e+300
lambda = 1.1382e-06; f =      9.9831575e+11
lambda = 1.2397e-06; f =     1.0000000e+300
lambda = 1.1778e-06; f =      9.9831575e+11
lambda = 1.2145e-06; f =     1.0000000e+300
lambda = 1.1923e-06; f =      9.9831575e+11
lambda = 1.2056e-06; f =     1.0000000e+300
Norm of dx   0.010389
Cliff again.  Try traversing.
Norm of dx        0
=======================================
 (1) New value of the obj. func. on iteration 0: 998315747259.649902344
 (2) Old value: 998315747259.650024414
 (3) Downhill improvement: 0.000122070
 (4) Seconds to complete one iteration: 0.0000
 (5) Current time of day: Thu Nov  2 09:24:21 2017


Convergence (improvement < crit 1.0000e-03) with return code 4.

Warning: Forth adjustment of stepsize didn't finish.
Predicted improvement: 15589522387599963892121600.000000000, Norm of gradient: 558381990891533.687500000
lambda =        1; f =     5.1900000e+302
lambda =    0.33333; f =     5.1900000e+302
lambda =    0.11111; f =     5.1900000e+302
lambda =   0.037037; f =     5.1900000e+302
lambda =   0.012346; f =     5.1900000e+302
lambda =  0.0041152; f =     5.1900000e+302
lambda =  0.0013717; f =     5.1900000e+302
lambda = 0.00045725; f =      5.1900000e+302
lambda = 0.00015242; f =      5.1900000e+302
lambda = 5.0805e-05; f =     5.1900000e+302
lambda = 1.6935e-05; f =     5.1900000e+302
lambda =  5.645e-06; f =     5.1900000e+302
lambda = 1.8817e-06; f =     5.1900000e+302
lambda = 6.2723e-07; f =     5.1900000e+302
lambda = 2.0908e-07; f =     5.1900000e+302
lambda = 6.9692e-08; f =     5.1900000e+302
```

```
lambda = 2.3231e-08; f =      5.1900000e+302
lambda = 7.7435e-09; f =      5.1900000e+302
lambda = 2.5812e-09; f =      5.1900000e+302
lambda = -6.2723e-07; f =      2.2039001e+14
lambda = -2.0908e-07; f =      2.2038988e+14
lambda = -6.9692e-08; f =      2.2038983e+14
lambda = -2.3231e-08; f =      2.2038981e+14
lambda = -7.7435e-09; f =      2.2038981e+14
lambda = -2.5812e-09; f =      2.2038981e+14
Norm of dx 5.5838e+09
=======================================
 (1) New value of the obj. func. on iteration 0: 998315747259.649902344
 (2) Old value: 998315747259.649902344
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 3.0000
 (5) Current time of day: Thu Nov  2 09:24:25 2017


Convergence (improvement < crit 1.0000e-03) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 1558952238759963892121600.000000000, Norm of gradient: 558381990891533.687500000
lambda =       1; f =      5.1900000e+302
lambda =   0.33333; f =      5.1900000e+302
lambda =   0.11111; f =      5.1900000e+302
lambda =   0.037037; f =      5.1900000e+302
lambda =   0.012346; f =      5.1900000e+302
lambda = 0.0041152; f =      5.1900000e+302
lambda = 0.0013717; f =      5.1900000e+302
lambda = 0.00045725; f =      5.1900000e+302
lambda = 0.00015242; f =      5.1900000e+302
lambda = 5.0805e-05; f =      5.1900000e+302
lambda = 1.6935e-05; f =      5.1900000e+302
lambda =  5.645e-06; f =      5.1900000e+302
lambda = 1.8817e-06; f =      5.1900000e+302
lambda = 6.2723e-07; f =      5.1900000e+302
lambda = 2.0908e-07; f =      5.1900000e+302
lambda = 6.9692e-08; f =      5.1900000e+302
lambda = 2.3231e-08; f =      5.1900000e+302
lambda = 7.7435e-09; f =      5.1900000e+302
lambda = 2.5812e-09; f =      5.1900000e+302
lambda = -6.2723e-07; f =      2.2039001e+14
lambda = -2.0908e-07; f =      2.2038988e+14
lambda = -6.9692e-08; f =      2.2038983e+14
lambda = -2.3231e-08; f =      2.2038981e+14
lambda = -7.7435e-09; f =      2.2038981e+14
lambda = -2.5812e-09; f =      2.2038981e+14
Norm of dx 5.5838e+09
=======================================
 (1) New value of the obj. func. on iteration 0: 998315747259.649902344
 (2) Old value: 998315747259.649902344
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 3.0000
 (5) Current time of day: Thu Nov  2 09:24:29 2017


Convergence (improvement < crit 1.0000e-04) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement:    1.672713086, Norm of gradient:    578.396591624
lambda =       1; f =      1.0000000e+300
lambda =   0.33333; f =      1.0000000e+300
lambda =   0.11111; f =      1.0000000e+300
lambda =   0.037037; f =      1.0000000e+300
lambda =   0.012346; f =      1.0000000e+300
lambda = 0.0041152; f =      1.0000000e+300
lambda = 0.0013717; f =      1.0000000e+300
lambda = 0.00045725; f =      1.0000000e+300
lambda = 0.00015242; f =      1.0000000e+300
lambda = 5.0805e-05; f =      1.0000000e+300
lambda = 1.6935e-05; f =      1.0000000e+300
```

```
lambda =  5.645e-06; f =     1.0000000e+300
lambda = 1.8817e-06; f =     1.0000000e+300
lambda = 6.2723e-07; f =     1.0000000e+300
lambda = 2.0908e-07; f =     9.9831575e+11
lambda = 6.9692e-08; f =     9.9831575e+11
lambda = 2.3231e-08; f =     9.9831575e+11
lambda = 7.7435e-09; f =     9.9831575e+11
lambda = 2.5812e-09; f =     9.9831575e+11
lambda = -6.2723e-07; f =     9.9831575e+11
lambda = -2.0908e-07; f =     9.9831575e+11
lambda = -6.9692e-08; f =     9.9831575e+11
lambda = -2.3231e-08; f =     9.9831575e+11
lambda = -7.7435e-09; f =     9.9831575e+11
lambda = -2.5812e-09; f =     9.9831575e+11
Norm of dx   0.005784
=======================================
 (1) New value of the obj. func. on iteration 0: 998315747259.649902344
 (2) Old value: 998315747259.649902344
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 0.0000
 (5) Current time of day: Thu Nov  2 09:24:29 2017


Convergence (improvement < crit 1.0000e-04) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 1558952238759963892121600.000000000, Norm of gradient: 558381990891533.687500000
lambda =        1; f =     5.1900000e+302
lambda =   0.33333; f =     5.1900000e+302
lambda =   0.11111; f =     5.1900000e+302
lambda =  0.037037; f =     5.1900000e+302
lambda =  0.012346; f =     5.1900000e+302
lambda = 0.0041152; f =     5.1900000e+302
lambda = 0.0013717; f =     5.1900000e+302
lambda = 0.00045725; f =     5.1900000e+302
lambda = 0.00015242; f =     5.1900000e+302
lambda = 5.0805e-05; f =     5.1900000e+302
lambda = 1.6935e-05; f =     5.1900000e+302
lambda =  5.645e-06; f =     5.1900000e+302
lambda = 1.8817e-06; f =     5.1900000e+302
lambda = 6.2723e-07; f =     5.1900000e+302
lambda = 2.0908e-07; f =     5.1900000e+302
lambda = 6.9692e-08; f =     5.1900000e+302
lambda = 2.3231e-08; f =     5.1900000e+302
lambda = 7.7435e-09; f =     5.1900000e+302
lambda = 2.5812e-09; f =     5.1900000e+302
lambda = -6.2723e-07; f =     2.2039001e+14
lambda = -2.0908e-07; f =     2.2038988e+14
lambda = -6.9692e-08; f =     2.2038983e+14
lambda = -2.3231e-08; f =     2.2038981e+14
lambda = -7.7435e-09; f =     2.2038981e+14
lambda = -2.5812e-09; f =     2.2038981e+14
Norm of dx 5.5838e+09
=======================================
 (1) New value of the obj. func. on iteration 0: 998315747259.649902344
 (2) Old value: 998315747259.649902344
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 3.0000
 (5) Current time of day: Thu Nov  2 09:24:33 2017


Convergence (improvement < crit 1.0000e-04) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 1558952238759963892121600.000000000, Norm of gradient: 558381990891533.687500000
lambda =        1; f =     5.1900000e+302
lambda =   0.33333; f =     5.1900000e+302
lambda =   0.11111; f =     5.1900000e+302
lambda =  0.037037; f =     5.1900000e+302
lambda =  0.012346; f =     5.1900000e+302
lambda = 0.0041152; f =     5.1900000e+302
```

```
lambda =  0.0013717; f =       5.1900000e+302
lambda = 0.00045725; f =        5.1900000e+302
lambda = 0.00015242; f =        5.1900000e+302
lambda = 5.0805e-05; f =       5.1900000e+302
lambda = 1.6935e-05; f =       5.1900000e+302
lambda =  5.645e-06; f =        5.1900000e+302
lambda = 1.8817e-06; f =       5.1900000e+302
lambda = 6.2723e-07; f =       5.1900000e+302
lambda = 2.0908e-07; f =       5.1900000e+302
lambda = 6.9692e-08; f =       5.1900000e+302
lambda = 2.3231e-08; f =       5.1900000e+302
lambda = 7.7435e-09; f =       5.1900000e+302
lambda = 2.5812e-09; f =       5.1900000e+302
lambda = -6.2723e-07; f =       2.2039001e+14
lambda = -2.0908e-07; f =       2.2038988e+14
lambda = -6.9692e-08; f =       2.2038983e+14
lambda = -2.3231e-08; f =       2.2038981e+14
lambda = -7.7435e-09; f =       2.2038981e+14
lambda = -2.5812e-09; f =       2.2038981e+14
Norm of dx 5.5838e+09
======================================
 (1) New value of the obj. func. on iteration 0: 998315747259.649902344
 (2) Old value: 998315747259.649902344
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 3.0000
 (5) Current time of day: Thu Nov  2 09:24:37 2017


Convergence (improvement < crit 1.0000e-05) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement:     1.672713086, Norm of gradient:     578.396591624
lambda =        1; f =     1.0000000e+300
lambda =   0.33333; f =      1.0000000e+300
lambda =   0.11111; f =      1.0000000e+300
lambda =  0.037037; f =      1.0000000e+300
lambda =  0.012346; f =      1.0000000e+300
lambda = 0.0041152; f =      1.0000000e+300
lambda = 0.0013717; f =      1.0000000e+300
lambda = 0.00045725; f =       1.0000000e+300
lambda = 0.00015242; f =       1.0000000e+300
lambda = 5.0805e-05; f =      1.0000000e+300
lambda = 1.6935e-05; f =      1.0000000e+300
lambda =  5.645e-06; f =      1.0000000e+300
lambda = 1.8817e-06; f =      1.0000000e+300
lambda = 6.2723e-07; f =      1.0000000e+300
lambda = 2.0908e-07; f =      9.9831575e+11
lambda = 6.9692e-08; f =      9.9831575e+11
lambda = 2.3231e-08; f =      9.9831575e+11
lambda = 7.7435e-09; f =      9.9831575e+11
lambda = 2.5812e-09; f =      9.9831575e+11
lambda = -6.2723e-07; f =       9.9831575e+11
lambda = -2.0908e-07; f =       9.9831575e+11
lambda = -6.9692e-08; f =       9.9831575e+11
lambda = -2.3231e-08; f =       9.9831575e+11
lambda = -7.7435e-09; f =       9.9831575e+11
lambda = -2.5812e-09; f =       9.9831575e+11
Norm of dx   0.005784
======================================
 (1) New value of the obj. func. on iteration 0: 998315747259.649902344
 (2) Old value: 998315747259.649902344
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 0.0000
 (5) Current time of day: Thu Nov  2 09:24:37 2017


Convergence (improvement < crit 1.0000e-05) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 15589522387599963892121600.000000000, Norm of gradient: 558381990891533.687500000
lambda =        1; f =     5.1900000e+302
```

```
lambda =   0.33333; f =    5.1900000e+302
lambda =   0.11111; f =    5.1900000e+302
lambda =  0.037037; f =    5.1900000e+302
lambda =  0.012346; f =    5.1900000e+302
lambda = 0.0041152; f =    5.1900000e+302
lambda = 0.0013717; f =    5.1900000e+302
lambda = 0.00045725; f =    5.1900000e+302
lambda = 0.00015242; f =    5.1900000e+302
lambda = 5.0805e-05; f =    5.1900000e+302
lambda = 1.6935e-05; f =    5.1900000e+302
lambda = 5.645e-06; f =    5.1900000e+302
lambda = 1.8817e-06; f =    5.1900000e+302
lambda = 6.2723e-07; f =    5.1900000e+302
lambda = 2.0908e-07; f =    5.1900000e+302
lambda = 6.9692e-08; f =    5.1900000e+302
lambda = 2.3231e-08; f =    5.1900000e+302
lambda = 7.7435e-09; f =    5.1900000e+302
lambda = 2.5812e-09; f =    5.1900000e+302
lambda = -6.2723e-07; f =    2.2039001e+14
lambda = -2.0908e-07; f =    2.2038988e+14
lambda = -6.9692e-08; f =    2.2038983e+14
lambda = -2.3231e-08; f =    2.2038981e+14
lambda = -7.7435e-09; f =    2.2038981e+14
lambda = -2.5812e-09; f =    2.2038981e+14
Norm of dx 5.5838e+09
=====================================
 (1) New value of the obj. func. on iteration 0: 998315747259.649902344
 (2) Old value: 998315747259.649902344
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 3.0000
 (5) Current time of day: Thu Nov  2 09:24:41 2017


Convergence (improvement < crit 1.0000e-05) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 1558952238759963892121600.000000000, Norm of gradient: 558381990891533.687500000
lambda =        1; f =    5.1900000e+302
lambda =   0.33333; f =    5.1900000e+302
lambda =   0.11111; f =    5.1900000e+302
lambda =  0.037037; f =    5.1900000e+302
lambda =  0.012346; f =    5.1900000e+302
lambda = 0.0041152; f =    5.1900000e+302
lambda = 0.0013717; f =    5.1900000e+302
lambda = 0.00045725; f =    5.1900000e+302
lambda = 0.00015242; f =    5.1900000e+302
lambda = 5.0805e-05; f =    5.1900000e+302
lambda = 1.6935e-05; f =    5.1900000e+302
lambda = 5.645e-06; f =    5.1900000e+302
lambda = 1.8817e-06; f =    5.1900000e+302
lambda = 6.2723e-07; f =    5.1900000e+302
lambda = 2.0908e-07; f =    5.1900000e+302
lambda = 6.9692e-08; f =    5.1900000e+302
lambda = 2.3231e-08; f =    5.1900000e+302
lambda = 7.7435e-09; f =    5.1900000e+302
lambda = 2.5812e-09; f =    5.1900000e+302
lambda = -6.2723e-07; f =    2.2039001e+14
lambda = -2.0908e-07; f =    2.2038988e+14
lambda = -6.9692e-08; f =    2.2038983e+14
lambda = -2.3231e-08; f =    2.2038981e+14
lambda = -7.7435e-09; f =    2.2038981e+14
lambda = -2.5812e-09; f =    2.2038981e+14
Norm of dx 5.5838e+09
=====================================
 (1) New value of the obj. func. on iteration 0: 998315747259.649902344
 (2) Old value: 998315747259.649902344
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 3.0000
 (5) Current time of day: Thu Nov  2 09:24:45 2017
```

Convergence (improvement < crit 1.0000e-06) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 1.672713086, Norm of gradient: 578.396591624
lambda =   1; f =   1.0000000e+300
lambda =   0.33333; f =   1.0000000e+300
lambda =   0.11111; f =   1.0000000e+300
lambda =   0.037037; f =   1.0000000e+300
lambda =   0.012346; f =   1.0000000e+300
lambda = 0.0041152; f =   1.0000000e+300
lambda = 0.0013717; f =   1.0000000e+300
lambda = 0.00045725; f =   1.0000000e+300
lambda = 0.00015242; f =   1.0000000e+300
lambda = 5.0805e-05; f =   1.0000000e+300
lambda = 1.6935e-05; f =   1.0000000e+300
lambda = 5.645e-06; f =   1.0000000e+300
lambda = 1.8817e-06; f =   1.0000000e+300
lambda = 6.2723e-07; f =   1.0000000e+300
lambda = 2.0908e-07; f =   9.9831575e+11
lambda = 6.9692e-08; f =   9.9831575e+11
lambda = 2.3231e-08; f =   9.9831575e+11
lambda = 7.7435e-09; f =   9.9831575e+11
lambda = 2.5812e-09; f =   9.9831575e+11
lambda = -6.2723e-07; f =   9.9831575e+11
lambda = -2.0908e-07; f =   9.9831575e+11
lambda = -6.9692e-08; f =   9.9831575e+11
lambda = -2.3231e-08; f =   9.9831575e+11
lambda = -7.7435e-09; f =   9.9831575e+11
lambda = -2.5812e-09; f =   9.9831575e+11
Norm of dx   0.005784
=======================================
 (1) New value of the obj. func. on iteration 0: 998315747259.649902344
 (2) Old value: 998315747259.649902344
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 0.0000
 (5) Current time of day: Thu Nov 2 09:24:45 2017

Convergence (improvement < crit 1.0000e-06) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 15589522387599963892121600.000000000, Norm of gradient: 558381990891533.687500000
lambda =   1; f =   5.1900000e+302
lambda =   0.33333; f =   5.1900000e+302
lambda =   0.11111; f =   5.1900000e+302
lambda =   0.037037; f =   5.1900000e+302
lambda =   0.012346; f =   5.1900000e+302
lambda = 0.0041152; f =   5.1900000e+302
lambda = 0.0013717; f =   5.1900000e+302
lambda = 0.00045725; f =   5.1900000e+302
lambda = 0.00015242; f =   5.1900000e+302
lambda = 5.0805e-05; f =   5.1900000e+302
lambda = 1.6935e-05; f =   5.1900000e+302
lambda = 5.645e-06; f =   5.1900000e+302
lambda = 1.8817e-06; f =   5.1900000e+302
lambda = 6.2723e-07; f =   5.1900000e+302
lambda = 2.0908e-07; f =   5.1900000e+302
lambda = 6.9692e-08; f =   5.1900000e+302
lambda = 2.3231e-08; f =   5.1900000e+302
lambda = 7.7435e-09; f =   5.1900000e+302
lambda = 2.5812e-09; f =   5.1900000e+302
lambda = -6.2723e-07; f =   2.2039001e+14
lambda = -2.0908e-07; f =   2.2038988e+14
lambda = -6.9692e-08; f =   2.2038983e+14
lambda = -2.3231e-08; f =   2.2038981e+14
lambda = -7.7435e-09; f =   2.2038981e+14
lambda = -2.5812e-09; f =   2.2038981e+14
Norm of dx 5.5838e+09
=======================================
 (1) New value of the obj. func. on iteration 0: 998315747259.649902344
 (2) Old value: 998315747259.649902344

(3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 2.0000
 (5) Current time of day: Thu Nov 2 09:24:48 2017

Convergence (improvement < crit 1.0000e-06) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 1558952238759963892121600.000000000, Norm of gradient: 558381990891533.687500000
lambda =   1; f =   5.1900000e+302
lambda =   0.33333; f =   5.1900000e+302
lambda =   0.11111; f =   5.1900000e+302
lambda = 0.037037; f =   5.1900000e+302
lambda = 0.012346; f =   5.1900000e+302
lambda = 0.0041152; f =   5.1900000e+302
lambda = 0.0013717; f =   5.1900000e+302
lambda = 0.00045725; f =   5.1900000e+302
lambda = 0.00015242; f =   5.1900000e+302
lambda = 5.0805e-05; f =   5.1900000e+302
lambda = 1.6935e-05; f =   5.1900000e+302
lambda = 5.645e-06; f =   5.1900000e+302
lambda = 1.8817e-06; f =   5.1900000e+302
lambda = 6.2723e-07; f =   5.1900000e+302
lambda = 2.0908e-07; f =   5.1900000e+302
lambda = 6.9692e-08; f =   5.1900000e+302
lambda = 2.3231e-08; f =   5.1900000e+302
lambda = 7.7435e-09; f =   5.1900000e+302
lambda = 2.5812e-09; f =   5.1900000e+302
lambda = -6.2723e-07; f =   2.2039001e+14
lambda = -2.0908e-07; f =   2.2038988e+14
lambda = -6.9692e-08; f =   2.2038983e+14
lambda = -2.3231e-08; f =   2.2038981e+14
lambda = -7.7435e-09; f =   2.2038981e+14
lambda = -2.5812e-09; f =   2.2038981e+14
Norm of dx 5.5838e+09
=====================================
 (1) New value of the obj. func. on iteration 0: 998315747259.649902344
 (2) Old value: 998315747259.649902344
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 2.0000
 (5) Current time of day: Thu Nov 2 09:24:52 2017

Convergence (improvement < crit 1.0000e-03) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 1.672713086, Norm of gradient: 578.396591624
lambda =   1; f =   1.0000000e+300
lambda =   0.33333; f =   1.0000000e+300
lambda =   0.11111; f =   1.0000000e+300
lambda = 0.037037; f =   1.0000000e+300
lambda = 0.012346; f =   1.0000000e+300
lambda = 0.0041152; f =   1.0000000e+300
lambda = 0.0013717; f =   1.0000000e+300
lambda = 0.00045725; f =   1.0000000e+300
lambda = 0.00015242; f =   1.0000000e+300
lambda = 5.0805e-05; f =   1.0000000e+300
lambda = 1.6935e-05; f =   1.0000000e+300
lambda = 5.645e-06; f =   1.0000000e+300
lambda = 1.8817e-06; f =   1.0000000e+300
lambda = 6.2723e-07; f =   1.0000000e+300
lambda = 2.0908e-07; f =   9.9831575e+11
lambda = 6.9692e-08; f =   9.9831575e+11
lambda = 2.3231e-08; f =   9.9831575e+11
lambda = 7.7435e-09; f =   9.9831575e+11
lambda = 2.5812e-09; f =   9.9831575e+11
lambda = -6.2723e-07; f =   9.9831575e+11
lambda = -2.0908e-07; f =   9.9831575e+11
lambda = -6.9692e-08; f =   9.9831575e+11
lambda = -2.3231e-08; f =   9.9831575e+11
lambda = -7.7435e-09; f =   9.9831575e+11

lambda = -2.5812e-09; f =   9.9831575e+11
Norm of dx   0.005784
=======================================
 (1) New value of the obj. func. on iteration 0: 998315747259.649902344
 (2) Old value: 998315747259.649902344
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 0.0000
 (5) Current time of day: Thu Nov 2 09:24:52 2017

Convergence (improvement < crit 1.0000e-03) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 1558952238759963892121600.000000000, Norm of gradient: 558381990891533.687500000
lambda =   1; f =   5.1900000e+302
lambda =   0.33333; f =   5.1900000e+302
lambda =   0.11111; f =   5.1900000e+302
lambda =   0.037037; f =   5.1900000e+302
lambda =   0.012346; f =   5.1900000e+302
lambda = 0.0041152; f =   5.1900000e+302
lambda = 0.0013717; f =   5.1900000e+302
lambda = 0.00045725; f =   5.1900000e+302
lambda = 0.00015242; f =   5.1900000e+302
lambda = 5.0805e-05; f =   5.1900000e+302
lambda = 1.6935e-05; f =   5.1900000e+302
lambda = 5.645e-06; f =   5.1900000e+302
lambda = 1.8817e-06; f =   5.1900000e+302
lambda = 6.2723e-07; f =   5.1900000e+302
lambda = 2.0908e-07; f =   5.1900000e+302
lambda = 6.9692e-08; f =   5.1900000e+302
lambda = 2.3231e-08; f =   5.1900000e+302
lambda = 7.7435e-09; f =   5.1900000e+302
lambda = 2.5812e-09; f =   5.1900000e+302
lambda = -6.2723e-07; f =   2.2039001e+14
lambda = -2.0908e-07; f =   2.2038988e+14
lambda = -6.9692e-08; f =   2.2038983e+14
lambda = -2.3231e-08; f =   2.2038981e+14
lambda = -7.7435e-09; f =   2.2038981e+14
lambda = -2.5812e-09; f =   2.2038981e+14
Norm of dx 5.5838e+09
=======================================
 (1) New value of the obj. func. on iteration 0: 998315747259.649902344
 (2) Old value: 998315747259.649902344
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 2.0000
 (5) Current time of day: Thu Nov 2 09:24:56 2017

Convergence (improvement < crit 1.0000e-03) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 1558952238759963892121600.000000000, Norm of gradient: 558381990891533.687500000
lambda =   1; f =   5.1900000e+302
lambda =   0.33333; f =   5.1900000e+302
lambda =   0.11111; f =   5.1900000e+302
lambda =   0.037037; f =   5.1900000e+302
lambda =   0.012346; f =   5.1900000e+302
lambda = 0.0041152; f =   5.1900000e+302
lambda = 0.0013717; f =   5.1900000e+302
lambda = 0.00045725; f =   5.1900000e+302
lambda = 0.00015242; f =   5.1900000e+302
lambda = 5.0805e-05; f =   5.1900000e+302
lambda = 1.6935e-05; f =   5.1900000e+302
lambda = 5.645e-06; f =   5.1900000e+302
lambda = 1.8817e-06; f =   5.1900000e+302
lambda = 6.2723e-07; f =   5.1900000e+302
lambda = 2.0908e-07; f =   5.1900000e+302
lambda = 6.9692e-08; f =   5.1900000e+302
lambda = 2.3231e-08; f =   5.1900000e+302
lambda = 7.7435e-09; f =   5.1900000e+302
lambda = 2.5812e-09; f =   5.1900000e+302

```
lambda = -6.2723e-07; f =      2.2039001e+14
lambda = -2.0908e-07; f =      2.2038988e+14
lambda = -6.9692e-08; f =      2.2038983e+14
lambda = -2.3231e-08; f =      2.2038981e+14
lambda = -7.7435e-09; f =      2.2038981e+14
lambda = -2.5812e-09; f =      2.2038981e+14
Norm of dx 5.5838e+09
=====================================
 (1) New value of the obj. func. on iteration 0: 998315747259.649902344
 (2) Old value: 998315747259.649902344
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 2.0000
 (5) Current time of day: Thu Nov  2 09:25:00 2017


Convergence (improvement < crit 1.0000e-04) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement:     1.672713086, Norm of gradient:    578.396591624
lambda =       1; f =     1.0000000e+300
lambda =   0.33333; f =     1.0000000e+300
lambda =   0.11111; f =     1.0000000e+300
lambda =   0.037037; f =     1.0000000e+300
lambda =   0.012346; f =     1.0000000e+300
lambda =  0.0041152; f =     1.0000000e+300
lambda =  0.0013717; f =     1.0000000e+300
lambda = 0.00045725; f =     1.0000000e+300
lambda = 0.00015242; f =     1.0000000e+300
lambda = 5.0805e-05; f =     1.0000000e+300
lambda = 1.6935e-05; f =     1.0000000e+300
lambda =  5.645e-06; f =     1.0000000e+300
lambda = 1.8817e-06; f =     1.0000000e+300
lambda = 6.2723e-07; f =     1.0000000e+300
lambda = 2.0908e-07; f =     9.9831575e+11
lambda = 6.9692e-08; f =     9.9831575e+11
lambda = 2.3231e-08; f =     9.9831575e+11
lambda = 7.7435e-09; f =     9.9831575e+11
lambda = 2.5812e-09; f =     9.9831575e+11
lambda = -6.2723e-07; f =      9.9831575e+11
lambda = -2.0908e-07; f =      9.9831575e+11
lambda = -6.9692e-08; f =      9.9831575e+11
lambda = -2.3231e-08; f =      9.9831575e+11
lambda = -7.7435e-09; f =      9.9831575e+11
lambda = -2.5812e-09; f =      9.9831575e+11
Norm of dx   0.005784
=====================================
 (1) New value of the obj. func. on iteration 0: 998315747259.649902344
 (2) Old value: 998315747259.649902344
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 0.0000
 (5) Current time of day: Thu Nov  2 09:25:00 2017


Convergence (improvement < crit 1.0000e-04) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 1558952238759963892121600.000000000, Norm of gradient: 558381990891533.687500000
lambda =       1; f =     5.1900000e+302
lambda =   0.33333; f =     5.1900000e+302
lambda =   0.11111; f =     5.1900000e+302
lambda =   0.037037; f =     5.1900000e+302
lambda =   0.012346; f =     5.1900000e+302
lambda =  0.0041152; f =     5.1900000e+302
lambda =  0.0013717; f =     5.1900000e+302
lambda = 0.00045725; f =     5.1900000e+302
lambda = 0.00015242; f =     5.1900000e+302
lambda = 5.0805e-05; f =     5.1900000e+302
lambda = 1.6935e-05; f =     5.1900000e+302
lambda =  5.645e-06; f =     5.1900000e+302
lambda = 1.8817e-06; f =     5.1900000e+302
lambda = 6.2723e-07; f =     5.1900000e+302
```

```
lambda = 2.0908e-07; f =      5.1900000e+302
lambda = 6.9692e-08; f =      5.1900000e+302
lambda = 2.3231e-08; f =      5.1900000e+302
lambda = 7.7435e-09; f =      5.1900000e+302
lambda = 2.5812e-09; f =      5.1900000e+302
lambda = -6.2723e-07; f =      2.2039001e+14
lambda = -2.0908e-07; f =      2.2038988e+14
lambda = -6.9692e-08; f =      2.2038983e+14
lambda = -2.3231e-08; f =      2.2038981e+14
lambda = -7.7435e-09; f =      2.2038981e+14
lambda = -2.5812e-09; f =      2.2038981e+14
Norm of dx 5.5838e+09
======================================
 (1) New value of the obj. func. on iteration 0: 998315747259.649902344
 (2) Old value: 998315747259.649902344
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 2.0000
 (5) Current time of day: Thu Nov  2 09:25:04 2017


Convergence (improvement < crit 1.0000e-04) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 15589522387599963892121600.000000000, Norm of gradient: 558381990891533.687500000
lambda =        1; f =      5.1900000e+302
lambda =    0.33333; f =      5.1900000e+302
lambda =    0.11111; f =      5.1900000e+302
lambda =   0.037037; f =      5.1900000e+302
lambda =   0.012346; f =      5.1900000e+302
lambda =  0.0041152; f =      5.1900000e+302
lambda =  0.0013717; f =      5.1900000e+302
lambda = 0.00045725; f =      5.1900000e+302
lambda = 0.00015242; f =      5.1900000e+302
lambda = 5.0805e-05; f =      5.1900000e+302
lambda = 1.6935e-05; f =      5.1900000e+302
lambda =  5.645e-06; f =      5.1900000e+302
lambda = 1.8817e-06; f =      5.1900000e+302
lambda = 6.2723e-07; f =      5.1900000e+302
lambda = 2.0908e-07; f =      5.1900000e+302
lambda = 6.9692e-08; f =      5.1900000e+302
lambda = 2.3231e-08; f =      5.1900000e+302
lambda = 7.7435e-09; f =      5.1900000e+302
lambda = 2.5812e-09; f =      5.1900000e+302
lambda = -6.2723e-07; f =      2.2039001e+14
lambda = -2.0908e-07; f =      2.2038988e+14
lambda = -6.9692e-08; f =      2.2038983e+14
lambda = -2.3231e-08; f =      2.2038981e+14
lambda = -7.7435e-09; f =      2.2038981e+14
lambda = -2.5812e-09; f =      2.2038981e+14
Norm of dx 5.5838e+09
======================================
 (1) New value of the obj. func. on iteration 0: 998315747259.649902344
 (2) Old value: 998315747259.649902344
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 2.0000
 (5) Current time of day: Thu Nov  2 09:25:08 2017


Convergence (improvement < crit 1.0000e-05) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement:    1.672713086, Norm of gradient:    578.396591624
lambda =        1; f =    1.0000000e+300
lambda =    0.33333; f =    1.0000000e+300
lambda =    0.11111; f =    1.0000000e+300
lambda =   0.037037; f =    1.0000000e+300
lambda =   0.012346; f =    1.0000000e+300
lambda =  0.0041152; f =    1.0000000e+300
lambda =  0.0013717; f =    1.0000000e+300
lambda = 0.00045725; f =    1.0000000e+300
lambda = 0.00015242; f =    1.0000000e+300
```

```
lambda = 5.0805e-05; f =      1.0000000e+300
lambda = 1.6935e-05; f =      1.0000000e+300
lambda =  5.645e-06; f =      1.0000000e+300
lambda = 1.8817e-06; f =      1.0000000e+300
lambda = 6.2723e-07; f =      1.0000000e+300
lambda = 2.0908e-07; f =      9.9831575e+11
lambda = 6.9692e-08; f =      9.9831575e+11
lambda = 2.3231e-08; f =      9.9831575e+11
lambda = 7.7435e-09; f =      9.9831575e+11
lambda = 2.5812e-09; f =      9.9831575e+11
lambda = -6.2723e-07; f =      9.9831575e+11
lambda = -2.0908e-07; f =      9.9831575e+11
lambda = -6.9692e-08; f =      9.9831575e+11
lambda = -2.3231e-08; f =      9.9831575e+11
lambda = -7.7435e-09; f =      9.9831575e+11
lambda = -2.5812e-09; f =      9.9831575e+11
Norm of dx   0.005784
========================================
 (1) New value of the obj. func. on iteration 0: 998315747259.649902344
 (2) Old value: 998315747259.649902344
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 0.0000
 (5) Current time of day: Thu Nov  2 09:25:08 2017


Convergence (improvement < crit 1.0000e-05) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 1558952238759963892121600.000000000, Norm of gradient: 558381990891533.687500000
lambda =        1; f =      5.1900000e+302
lambda =    0.33333; f =      5.1900000e+302
lambda =    0.11111; f =      5.1900000e+302
lambda =   0.037037; f =      5.1900000e+302
lambda =   0.012346; f =      5.1900000e+302
lambda =  0.0041152; f =      5.1900000e+302
lambda =  0.0013717; f =      5.1900000e+302
lambda = 0.00045725; f =      5.1900000e+302
lambda = 0.00015242; f =      5.1900000e+302
lambda = 5.0805e-05; f =      5.1900000e+302
lambda = 1.6935e-05; f =      5.1900000e+302
lambda =  5.645e-06; f =      5.1900000e+302
lambda = 1.8817e-06; f =      5.1900000e+302
lambda = 6.2723e-07; f =      5.1900000e+302
lambda = 2.0908e-07; f =      5.1900000e+302
lambda = 6.9692e-08; f =      5.1900000e+302
lambda = 2.3231e-08; f =      5.1900000e+302
lambda = 7.7435e-09; f =      5.1900000e+302
lambda = 2.5812e-09; f =      5.1900000e+302
lambda = -6.2723e-07; f =      2.2039001e+14
lambda = -2.0908e-07; f =      2.2038988e+14
lambda = -6.9692e-08; f =      2.2038983e+14
lambda = -2.3231e-08; f =      2.2038981e+14
lambda = -7.7435e-09; f =      2.2038981e+14
lambda = -2.5812e-09; f =      2.2038981e+14
Norm of dx 5.5838e+09
========================================
 (1) New value of the obj. func. on iteration 0: 998315747259.649902344
 (2) Old value: 998315747259.649902344
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 2.0000
 (5) Current time of day: Thu Nov  2 09:25:12 2017


Convergence (improvement < crit 1.0000e-05) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 1558952238759963892121600.000000000, Norm of gradient: 558381990891533.687500000
lambda =        1; f =      5.1900000e+302
lambda =    0.33333; f =      5.1900000e+302
lambda =    0.11111; f =      5.1900000e+302
lambda =   0.037037; f =      5.1900000e+302
```

```
lambda =  0.012346; f =     5.1900000e+302
lambda = 0.0041152; f =     5.1900000e+302
lambda = 0.0013717; f =     5.1900000e+302
lambda = 0.00045725; f =     5.1900000e+302
lambda = 0.00015242; f =     5.1900000e+302
lambda = 5.0805e-05; f =     5.1900000e+302
lambda = 1.6935e-05; f =     5.1900000e+302
lambda =  5.645e-06; f =     5.1900000e+302
lambda = 1.8817e-06; f =     5.1900000e+302
lambda = 6.2723e-07; f =     5.1900000e+302
lambda = 2.0908e-07; f =     5.1900000e+302
lambda = 6.9692e-08; f =     5.1900000e+302
lambda = 2.3231e-08; f =     5.1900000e+302
lambda = 7.7435e-09; f =     5.1900000e+302
lambda = 2.5812e-09; f =     5.1900000e+302
lambda = -6.2723e-07; f =     2.2039001e+14
lambda = -2.0908e-07; f =     2.2038988e+14
lambda = -6.9692e-08; f =     2.2038983e+14
lambda = -2.3231e-08; f =     2.2038981e+14
lambda = -7.7435e-09; f =     2.2038981e+14
lambda = -2.5812e-09; f =     2.2038981e+14
Norm of dx 5.5838e+09
=======================================
 (1) New value of the obj. func. on iteration 0: 998315747259.649902344
 (2) Old value: 998315747259.649902344
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 3.0000
 (5) Current time of day: Thu Nov  2 09:25:16 2017


Convergence (improvement < crit 1.0000e-06) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement:     1.672713086, Norm of gradient:     578.396591624
lambda =        1; f =     1.0000000e+300
lambda =   0.33333; f =     1.0000000e+300
lambda =   0.11111; f =     1.0000000e+300
lambda =  0.037037; f =     1.0000000e+300
lambda =  0.012346; f =     1.0000000e+300
lambda = 0.0041152; f =     1.0000000e+300
lambda = 0.0013717; f =     1.0000000e+300
lambda = 0.00045725; f =     1.0000000e+300
lambda = 0.00015242; f =     1.0000000e+300
lambda = 5.0805e-05; f =     1.0000000e+300
lambda = 1.6935e-05; f =     1.0000000e+300
lambda =  5.645e-06; f =     1.0000000e+300
lambda = 1.8817e-06; f =     1.0000000e+300
lambda = 6.2723e-07; f =     1.0000000e+300
lambda = 2.0908e-07; f =     9.9831575e+11
lambda = 6.9692e-08; f =     9.9831575e+11
lambda = 2.3231e-08; f =     9.9831575e+11
lambda = 7.7435e-09; f =     9.9831575e+11
lambda = 2.5812e-09; f =     9.9831575e+11
lambda = -6.2723e-07; f =     9.9831575e+11
lambda = -2.0908e-07; f =     9.9831575e+11
lambda = -6.9692e-08; f =     9.9831575e+11
lambda = -2.3231e-08; f =     9.9831575e+11
lambda = -7.7435e-09; f =     9.9831575e+11
lambda = -2.5812e-09; f =     9.9831575e+11
Norm of dx   0.005784
=======================================
 (1) New value of the obj. func. on iteration 0: 998315747259.649902344
 (2) Old value: 998315747259.649902344
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 0.0000
 (5) Current time of day: Thu Nov  2 09:25:16 2017


Convergence (improvement < crit 1.0000e-06) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
```

Predicted improvement: 15589522387599638921216000.000000000, Norm of gradient: 558381990891533.687500000
lambda =   1; f =   5.1900000e+302
lambda =   0.33333; f =   5.1900000e+302
lambda =   0.11111; f =   5.1900000e+302
lambda = 0.037037; f =   5.1900000e+302
lambda = 0.012346; f =   5.1900000e+302
lambda = 0.0041152; f =   5.1900000e+302
lambda = 0.0013717; f =   5.1900000e+302
lambda = 0.00045725; f =   5.1900000e+302
lambda = 0.00015242; f =   5.1900000e+302
lambda = 5.0805e-05; f =   5.1900000e+302
lambda = 1.6935e-05; f =   5.1900000e+302
lambda = 5.645e-06; f =   5.1900000e+302
lambda = 1.8817e-06; f =   5.1900000e+302
lambda = 6.2723e-07; f =   5.1900000e+302
lambda = 2.0908e-07; f =   5.1900000e+302
lambda = 6.9692e-08; f =   5.1900000e+302
lambda = 2.3231e-08; f =   5.1900000e+302
lambda = 7.7435e-09; f =   5.1900000e+302
lambda = 2.5812e-09; f =   5.1900000e+302
lambda = -6.2723e-07; f =   2.2039001e+14
lambda = -2.0908e-07; f =   2.2038988e+14
lambda = -6.9692e-08; f =   2.2038983e+14
lambda = -2.3231e-08; f =   2.2038981e+14
lambda = -7.7435e-09; f =   2.2038981e+14
lambda = -2.5812e-09; f =   2.2038981e+14
Norm of dx 5.5838e+09
======================================
 (1) New value of the obj. func. on iteration 0: 998315747259.649902344
 (2) Old value: 998315747259.649902344
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 3.0000
 (5) Current time of day: Thu Nov 2 09:25:20 2017

Convergence (improvement < crit 1.0000e-06) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 1438905713535959236083712.000000000, Norm of gradient: 536452367603305.312500000
lambda =   1; f =   5.1900000e+302
lambda =   0.33333; f =   5.1900000e+302
lambda =   0.11111; f =   5.1900000e+302
lambda = 0.037037; f =   5.1900000e+302
lambda = 0.012346; f =   5.1900000e+302
lambda = 0.0041152; f =   5.1900000e+302
lambda = 0.0013717; f =   5.1900000e+302
lambda = 0.00045725; f =   5.1900000e+302
lambda = 0.00015242; f =   5.1900000e+302
lambda = 5.0805e-05; f =   5.1900000e+302
lambda = 1.6935e-05; f =   5.1900000e+302
lambda = 5.645e-06; f =   5.1900000e+302
lambda = 1.8817e-06; f =   5.1900000e+302
lambda = 6.2723e-07; f =   5.1900000e+302
lambda = 2.0908e-07; f =   5.1900000e+302
lambda = 6.9692e-08; f =   5.1900000e+302
lambda = 2.3231e-08; f =   5.1900000e+302
lambda = 7.7435e-09; f =   5.1900000e+302
lambda = 2.5812e-09; f =   5.1900000e+302
lambda = -6.2723e-07; f =   9.4170117e+13
lambda = -2.0908e-07; f =   9.4170174e+13
lambda = -6.9692e-08; f =   9.4170193e+13
lambda = -2.3231e-08; f =   9.4170199e+13
lambda = -7.7435e-09; f =   9.4170201e+13
lambda = -2.5812e-09; f =   9.4170202e+13
Norm of dx 5.3645e+09
======================================
 (1) New value of the obj. func. on iteration 0: 959874651571.074462891
 (2) Old value: 959874651571.074462891
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 3.0000
 (5) Current time of day: Thu Nov 2 09:25:24 2017

Convergence (improvement < crit 1.0000e-03) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 1.666728407, Norm of gradient: 577.360962855
lambda =   1; f =   1.0000000e+300
lambda =   0.33333; f =   1.0000000e+300
lambda =   0.11111; f =   1.0000000e+300
lambda =   0.037037; f =   1.0000000e+300
lambda =   0.012346; f =   9.5987465e+11
lambda =   0.023866; f =   9.5987465e+11
lambda =   0.046138; f =   1.0000000e+300
lambda =   0.031067; f =   1.0000000e+300
lambda =   0.024504; f =   1.0000000e+300
lambda =   0.024056; f =   9.5987465e+11
lambda =   0.024324; f =   1.0000000e+300
Norm of dx 0.0057736
======= Random search takes place now. =======
Cliff. Perturbing search direction.
Predicted improvement: 2.066620704, Norm of gradient: 577.360962855
lambda =   1; f =   1.0000000e+300
lambda =   0.33333; f =   1.0000000e+300
lambda =   0.11111; f =   1.0000000e+300
lambda =   0.037037; f =   1.0000000e+300
lambda =   0.012346; f =   9.5987465e+11
lambda =   0.023866; f =   1.0000000e+300
lambda =   0.01607; f =   9.5987465e+11
lambda =   0.020374; f =   1.0000000e+300
lambda =   0.01767; f =   9.5987465e+11
lambda =   0.019246; f =   9.5987465e+11
lambda =   0.020963; f =   1.0000000e+300
lambda =   0.019915; f =   1.0000000e+300
lambda =   0.019312; f =   9.5987465e+11
lambda =   0.019672; f =   1.0000000e+300
lambda =   0.019455; f =   9.5987465e+11
Norm of dx 0.0071717
Cliff again. Try traversing.
Predicted improvement: 427.882916429, Norm of gradient: 29.253475569
lambda =   1; f =   1.0000000e+300
lambda =   0.33333; f =   1.0000000e+300
lambda =   0.11111; f =   1.0000000e+300
lambda =   0.037037; f =   1.0000000e+300
lambda =   0.012346; f =   1.0000000e+300
lambda = 0.0041152; f =   1.0000000e+300
lambda = 0.0013717; f =   1.0000000e+300
lambda = 0.00045725; f =   1.0000000e+300
lambda = 0.00015242; f =   9.5987465e+11
lambda = 0.00029465; f =   9.5987465e+11
lambda = 0.00056961; f =   1.0000000e+300
lambda = 0.00038354; f =   1.0000000e+300
lambda = 0.00030252; f =   9.5987465e+11
lambda = 0.00034881; f =   9.5987465e+11
lambda = 0.00040218; f =   1.0000000e+300
lambda = 0.00036925; f =   9.5987465e+11
lambda = 0.00038867; f =   1.0000000e+300
lambda = 0.0003769; f =   9.5987465e+11
lambda = 0.00038392; f =   1.0000000e+300
lambda = 0.00037969; f =   9.5987465e+11
Norm of dx   29.253
=======================================
 (1) New value of the obj. func. on iteration 0: 959874651570.781494141
 (2) Old value: 959874651571.074462891
 (3) Downhill improvement: 0.292968750
 (4) Seconds to complete one iteration: 0.0000
 (5) Current time of day: Thu Nov 2 09:25:24 2017

Warning: Forth adjustment of stepsize didn't finish.
Predicted improvement: 1.670731232, Norm of gradient: 578.053843785

```
lambda =        1; f =     1.0000000e+300
lambda =   0.33333; f =       1.0000000e+300
lambda =   0.11111; f =       1.0000000e+300
lambda =  0.037037; f =       9.5987465e+11
Norm of dx  0.0057805
========================================
 (1) New value of the obj. func. on iteration 1: 959874651570.657836914
 (2) Old value: 959874651570.781494141
 (3) Downhill improvement: 0.123657227
 (4) Seconds to complete one iteration: 0.0000
 (5) Current time of day: Thu Nov  2 09:25:24 2017


Predicted improvement:     1.667002216, Norm of gradient:     577.408385111
lambda =        1; f =     1.0000000e+300
lambda =   0.33333; f =       1.0000000e+300
lambda =   0.11111; f =       1.0000000e+300
lambda =  0.037037; f =       9.5987465e+11
lambda =  0.071599; f =       1.0000000e+300
lambda =  0.048211; f =       9.5987465e+11
lambda =  0.061123; f =       1.0000000e+300
lambda =  0.053011; f =       9.5987465e+11
lambda =  0.057739; f =       9.5987465e+11
lambda =  0.062888; f =       1.0000000e+300
lambda =  0.059746; f =       1.0000000e+300
lambda =  0.057937; f =       9.5987465e+11
lambda =  0.059016; f =       1.0000000e+300
lambda =  0.058366; f =       1.0000000e+300
Norm of dx  0.0057741
======= Random search takes place now. =======
Cliff.  Perturbing search direction.
Predicted improvement:     3.011229801, Norm of gradient:     577.408385111
lambda =        1; f =     1.0000000e+300
lambda =   0.33333; f =       1.0000000e+300
lambda =   0.11111; f =       1.0000000e+300
lambda =  0.037037; f =       1.0000000e+300
lambda =  0.012346; f =       9.5987465e+11
lambda =  0.023866; f =       9.5987465e+11
lambda =  0.046138; f =       1.0000000e+300
lambda =  0.031067; f =       9.5987465e+11
lambda =  0.039387; f =       1.0000000e+300
lambda =   0.03416; f =       1.0000000e+300
lambda =  0.031363; f =       9.5987465e+11
lambda =  0.033013; f =       1.0000000e+300
lambda =  0.032013; f =       1.0000000e+300
lambda =  0.031427; f =       9.5987465e+11
lambda =  0.031777; f =       9.5987465e+11
lambda =  0.032131; f =       1.0000000e+300
Norm of dx   0.010446
Cliff again.  Try traversing.
Predicted improvement:   4372.561737742, Norm of gradient:      93.515364917
lambda =        1; f =     1.0000000e+300
lambda =   0.33333; f =       1.0000000e+300
lambda =   0.11111; f =       1.0000000e+300
lambda =  0.037037; f =       1.0000000e+300
lambda =  0.012346; f =       1.0000000e+300
lambda = 0.0041152; f =       1.0000000e+300
lambda = 0.0013717; f =       1.0000000e+300
lambda = 0.00045725; f =       1.0000000e+300
lambda = 0.00015242; f =       1.0000000e+300
lambda = 5.0805e-05; f =       1.0000000e+300
lambda = 1.6935e-05; f =       1.0000000e+300
lambda =  5.645e-06; f =       1.0000000e+300
lambda = 1.8817e-06; f =       1.0000000e+300
lambda = 6.2723e-07; f =       1.0000000e+300
lambda = 2.0908e-07; f =       9.5987465e+11
lambda = 4.0418e-07; f =       9.5987465e+11
lambda = 7.8135e-07; f =       1.0000000e+300
lambda = 5.2612e-07; f =       9.5987465e+11
lambda = 6.6703e-07; f =       1.0000000e+300
lambda = 5.7851e-07; f =       1.0000000e+300
```

```
lambda = 5.3114e-07; f =      9.5987465e+11
lambda = 5.5907e-07; f =    1.0000000e+300
lambda = 5.4214e-07; f =      9.5987465e+11
lambda = 5.5224e-07; f =      9.5987465e+11
lambda = 5.6252e-07; f =    1.0000000e+300
lambda = 5.5633e-07; f =    1.0000000e+300
Norm of dx    93.515
=====================================
 (1) New value of the obj. func. on iteration 2: 959874651570.464843750
 (2) Old value: 959874651570.657836914
 (3) Downhill improvement: 0.192993164
 (4) Seconds to complete one iteration: 0.0000
 (5) Current time of day: Thu Nov  2 09:25:24 2017


Warning: Back adjustment of stepsize didn't finish.
Predicted improvement:     1.667002216, Norm of gradient:     577.408385111
lambda =        1; f =    1.0000000e+300
lambda =   0.33333; f =    1.0000000e+300
lambda =   0.11111; f =    1.0000000e+300
lambda =   0.037037; f =    1.0000000e+300
lambda =   0.012346; f =    1.0000000e+300
lambda = 0.0041152; f =    1.0000000e+300
lambda = 0.0013717; f =    1.0000000e+300
lambda = 0.00045725; f =    1.0000000e+300
lambda = 0.00015242; f =      9.5987465e+11
Norm of dx  0.0057741
======================================
 (1) New value of the obj. func. on iteration 3: 959874651570.464233398
 (2) Old value: 959874651570.464843750
 (3) Downhill improvement: 0.000610352
 (4) Seconds to complete one iteration: 0.0000
 (5) Current time of day: Thu Nov  2 09:25:24 2017


Convergence (improvement < crit 1.0000e-03) with return code 0.
Predicted improvement: 1438905713535959236083712.000000000, Norm of gradient: 536452367603305.312500000
lambda =        1; f =      5.1900000e+302
lambda =   0.33333; f =      5.1900000e+302
lambda =   0.11111; f =      5.1900000e+302
lambda =   0.037037; f =      5.1900000e+302
lambda =   0.012346; f =      5.1900000e+302
lambda = 0.0041152; f =      5.1900000e+302
lambda = 0.0013717; f =      5.1900000e+302
lambda = 0.00045725; f =      5.1900000e+302
lambda = 0.00015242; f =      5.1900000e+302
lambda = 5.0805e-05; f =      5.1900000e+302
lambda = 1.6935e-05; f =      5.1900000e+302
lambda =  5.645e-06; f =      5.1900000e+302
lambda = 1.8817e-06; f =      5.1900000e+302
lambda = 6.2723e-07; f =      5.1900000e+302
lambda = 2.0908e-07; f =      5.1900000e+302
lambda = 6.9692e-08; f =      5.1900000e+302
lambda = 2.3231e-08; f =      5.1900000e+302
lambda = 7.7435e-09; f =      5.1900000e+302
lambda = 2.5812e-09; f =      5.1900000e+302
lambda = -6.2723e-07; f =      9.4170117e+13
lambda = -2.0908e-07; f =      9.4170174e+13
lambda = -6.9692e-08; f =      9.4170193e+13
lambda = -2.3231e-08; f =      9.4170199e+13
lambda = -7.7435e-09; f =      9.4170201e+13
lambda = -2.5812e-09; f =      9.4170202e+13
Norm of dx 5.3645e+09
======================================
 (1) New value of the obj. func. on iteration 0: 959874651570.464233398
 (2) Old value: 959874651570.464233398
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 3.0000
 (5) Current time of day: Thu Nov  2 09:25:28 2017
```

Convergence (improvement < crit 1.0000e-03) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 1.673586667, Norm of gradient: 578.547606785
lambda =   1; f =   1.0000000e+300
lambda =   0.33333; f =   1.0000000e+300
lambda =   0.11111; f =   1.0000000e+300
lambda =   0.037037; f =   1.0000000e+300
lambda =   0.012346; f =   1.0000000e+300
lambda = 0.0041152; f =   1.0000000e+300
lambda = 0.0013717; f =   1.0000000e+300
lambda = 0.00045725; f =   1.0000000e+300
lambda = 0.00015242; f =   9.5987465e+11
lambda = 0.00029465; f =   1.0000000e+300
lambda = 0.0001984; f =   9.5987465e+11
lambda = 0.00025153; f =   1.0000000e+300
lambda = 0.00021815; f =   1.0000000e+300
lambda = 0.00020029; f =   9.5987465e+11
lambda = 0.00021082; f =   9.5987465e+11
lambda = 0.00022191; f =   1.0000000e+300
lambda = 0.00021519; f =   1.0000000e+300
lambda = 0.00021126; f =   9.5987465e+11
lambda = 0.00021361; f =   9.5987465e+11
lambda = 0.00021599; f =   1.0000000e+300
Norm of dx 0.0057855
======= Random search takes place now. =======
Cliff. Perturbing search direction.
Predicted improvement: 2.241145211, Norm of gradient: 578.547606785
lambda =   1; f =   1.0000000e+300
lambda =   0.33333; f =   1.0000000e+300
lambda =   0.11111; f =   1.0000000e+300
lambda =   0.037037; f =   1.0000000e+300
lambda =   0.012346; f =   1.0000000e+300
lambda = 0.0041152; f =   1.0000000e+300
lambda = 0.0013717; f =   1.0000000e+300
lambda = 0.00045725; f =   1.0000000e+300
lambda = 0.00015242; f =   9.5987465e+11
lambda = 0.00029465; f =   1.0000000e+300
lambda = 0.0001984; f =   1.0000000e+300
lambda = 0.00015649; f =   9.5987465e+11
lambda = 0.00018043; f =   1.0000000e+300
lambda = 0.00016566; f =   1.0000000e+300
lambda = 0.00015738; f =   9.5987465e+11
lambda = 0.0001623; f =   1.0000000e+300
lambda = 0.00015933; f =   9.5987465e+11
lambda = 0.0001611; f =   1.0000000e+300
Norm of dx 0.0077542
Cliff again. Try traversing.
Norm of dx   0
======================================
 (1) New value of the obj. func. on iteration 0: 959874651570.463500977
 (2) Old value: 959874651570.464233398
 (3) Downhill improvement: 0.000732422
 (4) Seconds to complete one iteration: 0.0000
 (5) Current time of day: Thu Nov 2 09:25:28 2017

Convergence (improvement < crit 1.0000e-03) with return code 2.

Warning: Back adjustment of stepsize didn't finish.
Predicted improvement: 14389057135359648733228288.000000000, Norm of gradient: 536452367603306.375000000
lambda =   1; f =   5.1900000e+302
lambda =   0.33333; f =   5.1900000e+302
lambda =   0.11111; f =   5.1900000e+302
lambda =   0.037037; f =   5.1900000e+302
lambda =   0.012346; f =   5.1900000e+302
lambda = 0.0041152; f =   5.1900000e+302
lambda = 0.0013717; f =   5.1900000e+302
lambda = 0.00045725; f =   5.1900000e+302
lambda = 0.00015242; f =   5.1900000e+302

```
lambda =  5.0805e-05; f =      5.1900000e+302
lambda =  1.6935e-05; f =      5.1900000e+302
lambda =   5.645e-06; f =      5.1900000e+302
lambda =  1.8817e-06; f =      5.1900000e+302
lambda =  6.2723e-07; f =      5.1900000e+302
lambda =  2.0908e-07; f =      5.1900000e+302
lambda =  6.9692e-08; f =      5.1900000e+302
lambda =  2.3231e-08; f =      5.1900000e+302
lambda =  7.7435e-09; f =      5.1900000e+302
lambda =  2.5812e-09; f =      5.1900000e+302
lambda = -6.2723e-07; f =        9.4170117e+13
lambda = -2.0908e-07; f =        9.4170174e+13
lambda = -6.9692e-08; f =        9.4170193e+13
lambda = -2.3231e-08; f =        9.4170199e+13
lambda = -7.7435e-09; f =        9.4170201e+13
lambda = -2.5812e-09; f =        9.4170202e+13
Norm of dx 5.3645e+09
======================================
 (1) New value of the obj. func. on iteration 0: 959874651570.463500977
 (2) Old value: 959874651570.463500977
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 3.0000
 (5) Current time of day: Thu Nov  2 09:25:32 2017


Convergence (improvement < crit 1.0000e-03) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 1438905713535964873228288.000000000, Norm of gradient: 536452367603306.375000000
lambda =        1; f =      5.1900000e+302
lambda =   0.33333; f =      5.1900000e+302
lambda =   0.11111; f =      5.1900000e+302
lambda =  0.037037; f =      5.1900000e+302
lambda =  0.012346; f =      5.1900000e+302
lambda =  0.0041152; f =      5.1900000e+302
lambda =  0.0013717; f =      5.1900000e+302
lambda = 0.00045725; f =       5.1900000e+302
lambda = 0.00015242; f =       5.1900000e+302
lambda =  5.0805e-05; f =      5.1900000e+302
lambda =  1.6935e-05; f =      5.1900000e+302
lambda =   5.645e-06; f =      5.1900000e+302
lambda =  1.8817e-06; f =      5.1900000e+302
lambda =  6.2723e-07; f =      5.1900000e+302
lambda =  2.0908e-07; f =      5.1900000e+302
lambda =  6.9692e-08; f =      5.1900000e+302
lambda =  2.3231e-08; f =      5.1900000e+302
lambda =  7.7435e-09; f =      5.1900000e+302
lambda =  2.5812e-09; f =      5.1900000e+302
lambda = -6.2723e-07; f =        9.4170117e+13
lambda = -2.0908e-07; f =        9.4170174e+13
lambda = -6.9692e-08; f =        9.4170193e+13
lambda = -2.3231e-08; f =        9.4170199e+13
lambda = -7.7435e-09; f =        9.4170201e+13
lambda = -2.5812e-09; f =        9.4170202e+13
Norm of dx 5.3645e+09
======================================
 (1) New value of the obj. func. on iteration 0: 959874651570.463500977
 (2) Old value: 959874651570.463500977
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 3.0000
 (5) Current time of day: Thu Nov  2 09:25:36 2017


Convergence (improvement < crit 1.0000e-04) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement:     1.674160361, Norm of gradient:     578.646759481
lambda =        1; f =      1.0000000e+300
lambda =   0.33333; f =      1.0000000e+300
lambda =   0.11111; f =      1.0000000e+300
lambda =  0.037037; f =      1.0000000e+300
```

```
lambda =  0.012346; f =     1.0000000e+300
lambda = 0.0041152; f =     1.0000000e+300
lambda = 0.0013717; f =     1.0000000e+300
lambda = 0.00045725; f =     1.0000000e+300
lambda = 0.00015242; f =     1.0000000e+300
lambda = 5.0805e-05; f =     1.0000000e+300
lambda = 1.6935e-05; f =     1.0000000e+300
lambda =  5.645e-06; f =     1.0000000e+300
lambda = 1.8817e-06; f =     9.5987465e+11
lambda = 6.2723e-07; f =     9.5987465e+11
lambda = 2.0908e-07; f =     9.5987465e+11
lambda = 6.9692e-08; f =     9.5987465e+11
lambda = 2.3231e-08; f =     9.5987465e+11
lambda = 7.7435e-09; f =     9.5987465e+11
lambda = 2.5812e-09; f =     9.5987465e+11
lambda = -6.2723e-07; f =     9.5987465e+11
lambda = -2.0908e-07; f =     9.5987465e+11
lambda = -6.9692e-08; f =     9.5987465e+11
lambda = -2.3231e-08; f =     9.5987465e+11
lambda = -7.7435e-09; f =     9.5987465e+11
lambda = -2.5812e-09; f =     9.5987465e+11
Norm of dx  0.0057865
=======================================
 (1) New value of the obj. func. on iteration 0: 959874651570.463500977
 (2) Old value: 959874651570.463500977
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 0.0000
 (5) Current time of day: Thu Nov  2 09:25:36 2017


Convergence (improvement < crit 1.0000e-04) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 14389057135359648732288.000000000, Norm of gradient: 536452367603306.375000000
lambda =        1; f =     5.1900000e+302
lambda =  0.33333; f =     5.1900000e+302
lambda =  0.11111; f =     5.1900000e+302
lambda =  0.037037; f =     5.1900000e+302
lambda =  0.012346; f =     5.1900000e+302
lambda = 0.0041152; f =     5.1900000e+302
lambda = 0.0013717; f =     5.1900000e+302
lambda = 0.00045725; f =     5.1900000e+302
lambda = 0.00015242; f =     5.1900000e+302
lambda = 5.0805e-05; f =     5.1900000e+302
lambda = 1.6935e-05; f =     5.1900000e+302
lambda =  5.645e-06; f =     5.1900000e+302
lambda = 1.8817e-06; f =     5.1900000e+302
lambda = 6.2723e-07; f =     5.1900000e+302
lambda = 2.0908e-07; f =     5.1900000e+302
lambda = 6.9692e-08; f =     5.1900000e+302
lambda = 2.3231e-08; f =     5.1900000e+302
lambda = 7.7435e-09; f =     5.1900000e+302
lambda = 2.5812e-09; f =     5.1900000e+302
lambda = -6.2723e-07; f =     9.4170117e+13
lambda = -2.0908e-07; f =     9.4170174e+13
lambda = -6.9692e-08; f =     9.4170193e+13
lambda = -2.3231e-08; f =     9.4170199e+13
lambda = -7.7435e-09; f =     9.4170201e+13
lambda = -2.5812e-09; f =     9.4170202e+13
Norm of dx 5.3645e+09
=======================================
 (1) New value of the obj. func. on iteration 0: 959874651570.463500977
 (2) Old value: 959874651570.463500977
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 3.0000
 (5) Current time of day: Thu Nov  2 09:25:40 2017


Convergence (improvement < crit 1.0000e-04) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
```

Predicted improvement: 14389057135535964873228288.000000000, Norm of gradient: 536452367603306.375000000
lambda =   1; f =   5.1900000e+302
lambda =   0.33333; f =   5.1900000e+302
lambda =   0.11111; f =   5.1900000e+302
lambda = 0.037037; f =   5.1900000e+302
lambda = 0.012346; f =   5.1900000e+302
lambda = 0.0041152; f =   5.1900000e+302
lambda = 0.0013717; f =   5.1900000e+302
lambda = 0.00045725; f =   5.1900000e+302
lambda = 0.00015242; f =   5.1900000e+302
lambda = 5.0805e-05; f =   5.1900000e+302
lambda = 1.6935e-05; f =   5.1900000e+302
lambda = 5.645e-06; f =   5.1900000e+302
lambda = 1.8817e-06; f =   5.1900000e+302
lambda = 6.2723e-07; f =   5.1900000e+302
lambda = 2.0908e-07; f =   5.1900000e+302
lambda = 6.9692e-08; f =   5.1900000e+302
lambda = 2.3231e-08; f =   5.1900000e+302
lambda = 7.7435e-09; f =   5.1900000e+302
lambda = 2.5812e-09; f =   5.1900000e+302
lambda = -6.2723e-07; f =   9.4170117e+13
lambda = -2.0908e-07; f =   9.4170174e+13
lambda = -6.9692e-08; f =   9.4170193e+13
lambda = -2.3231e-08; f =   9.4170199e+13
lambda = -7.7435e-09; f =   9.4170201e+13
lambda = -2.5812e-09; f =   9.4170202e+13
Norm of dx 5.3645e+09
======================================
 (1) New value of the obj. func. on iteration 0: 959874651570.463500977
 (2) Old value: 959874651570.463500977
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 3.0000
 (5) Current time of day: Thu Nov 2 09:25:44 2017

Convergence (improvement < crit 1.0000e-05) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 1.674160361, Norm of gradient: 578.646759481
lambda =   1; f =   1.0000000e+300
lambda =   0.33333; f =   1.0000000e+300
lambda =   0.11111; f =   1.0000000e+300
lambda = 0.037037; f =   1.0000000e+300
lambda = 0.012346; f =   1.0000000e+300
lambda = 0.0041152; f =   1.0000000e+300
lambda = 0.0013717; f =   1.0000000e+300
lambda = 0.00045725; f =   1.0000000e+300
lambda = 0.00015242; f =   1.0000000e+300
lambda = 5.0805e-05; f =   1.0000000e+300
lambda = 1.6935e-05; f =   1.0000000e+300
lambda = 5.645e-06; f =   1.0000000e+300
lambda = 1.8817e-06; f =   9.5987465e+11
lambda = 6.2723e-07; f =   9.5987465e+11
lambda = 2.0908e-07; f =   9.5987465e+11
lambda = 6.9692e-08; f =   9.5987465e+11
lambda = 2.3231e-08; f =   9.5987465e+11
lambda = 7.7435e-09; f =   9.5987465e+11
lambda = 2.5812e-09; f =   9.5987465e+11
lambda = -6.2723e-07; f =   9.5987465e+11
lambda = -2.0908e-07; f =   9.5987465e+11
lambda = -6.9692e-08; f =   9.5987465e+11
lambda = -2.3231e-08; f =   9.5987465e+11
lambda = -7.7435e-09; f =   9.5987465e+11
lambda = -2.5812e-09; f =   9.5987465e+11
Norm of dx 0.0057865
======================================
 (1) New value of the obj. func. on iteration 0: 959874651570.463500977
 (2) Old value: 959874651570.463500977
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 0.0000
 (5) Current time of day: Thu Nov 2 09:25:44 2017

Convergence (improvement < crit 1.0000e-05) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 14389057135359648732282888.000000000, Norm of gradient: 536452367603306.375000000
lambda =   1; f =   5.1900000e+302
lambda =   0.33333; f =   5.1900000e+302
lambda =   0.11111; f =   5.1900000e+302
lambda = 0.037037; f =   5.1900000e+302
lambda = 0.012346; f =   5.1900000e+302
lambda = 0.0041152; f =   5.1900000e+302
lambda = 0.0013717; f =   5.1900000e+302
lambda = 0.00045725; f =   5.1900000e+302
lambda = 0.00015242; f =   5.1900000e+302
lambda = 5.0805e-05; f =   5.1900000e+302
lambda = 1.6935e-05; f =   5.1900000e+302
lambda = 5.645e-06; f =   5.1900000e+302
lambda = 1.8817e-06; f =   5.1900000e+302
lambda = 6.2723e-07; f =   5.1900000e+302
lambda = 2.0908e-07; f =   5.1900000e+302
lambda = 6.9692e-08; f =   5.1900000e+302
lambda = 2.3231e-08; f =   5.1900000e+302
lambda = 7.7435e-09; f =   5.1900000e+302
lambda = 2.5812e-09; f =   5.1900000e+302
lambda = -6.2723e-07; f =   9.4170117e+13
lambda = -2.0908e-07; f =   9.4170174e+13
lambda = -6.9692e-08; f =   9.4170193e+13
lambda = -2.3231e-08; f =   9.4170199e+13
lambda = -7.7435e-09; f =   9.4170201e+13
lambda = -2.5812e-09; f =   9.4170202e+13
Norm of dx 5.3645e+09
=======================================
 (1) New value of the obj. func. on iteration 0: 959874651570.463500977
 (2) Old value: 959874651570.463500977
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 3.0000
 (5) Current time of day: Thu Nov 2 09:25:48 2017

Convergence (improvement < crit 1.0000e-05) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 14389057135359648732282888.000000000, Norm of gradient: 536452367603306.375000000
lambda =   1; f =   5.1900000e+302
lambda =   0.33333; f =   5.1900000e+302
lambda =   0.11111; f =   5.1900000e+302
lambda = 0.037037; f =   5.1900000e+302
lambda = 0.012346; f =   5.1900000e+302
lambda = 0.0041152; f =   5.1900000e+302
lambda = 0.0013717; f =   5.1900000e+302
lambda = 0.00045725; f =   5.1900000e+302
lambda = 0.00015242; f =   5.1900000e+302
lambda = 5.0805e-05; f =   5.1900000e+302
lambda = 1.6935e-05; f =   5.1900000e+302
lambda = 5.645e-06; f =   5.1900000e+302
lambda = 1.8817e-06; f =   5.1900000e+302
lambda = 6.2723e-07; f =   5.1900000e+302
lambda = 2.0908e-07; f =   5.1900000e+302
lambda = 6.9692e-08; f =   5.1900000e+302
lambda = 2.3231e-08; f =   5.1900000e+302
lambda = 7.7435e-09; f =   5.1900000e+302
lambda = 2.5812e-09; f =   5.1900000e+302
lambda = -6.2723e-07; f =   9.4170117e+13
lambda = -2.0908e-07; f =   9.4170174e+13
lambda = -6.9692e-08; f =   9.4170193e+13
lambda = -2.3231e-08; f =   9.4170199e+13
lambda = -7.7435e-09; f =   9.4170201e+13
lambda = -2.5812e-09; f =   9.4170202e+13
Norm of dx 5.3645e+09
=======================================

(1) New value of the obj. func. on iteration 0: 959874651570.463500977
(2) Old value: 959874651570.463500977
(3) Downhill improvement: 0.000000000
(4) Seconds to complete one iteration: 3.0000
(5) Current time of day: Thu Nov 2 09:25:52 2017

Convergence (improvement < crit 1.0000e-06) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 1.674160361, Norm of gradient: 578.646759481
lambda =   1; f =   1.0000000e+300
lambda =   0.33333; f =   1.0000000e+300
lambda =   0.11111; f =   1.0000000e+300
lambda = 0.037037; f =   1.0000000e+300
lambda = 0.012346; f =   1.0000000e+300
lambda = 0.0041152; f =   1.0000000e+300
lambda = 0.0013717; f =   1.0000000e+300
lambda = 0.00045725; f =   1.0000000e+300
lambda = 0.00015242; f =   1.0000000e+300
lambda = 5.0805e-05; f =   1.0000000e+300
lambda = 1.6935e-05; f =   1.0000000e+300
lambda = 5.645e-06; f =   1.0000000e+300
lambda = 1.8817e-06; f =   9.5987465e+11
lambda = 6.2723e-07; f =   9.5987465e+11
lambda = 2.0908e-07; f =   9.5987465e+11
lambda = 6.9692e-08; f =   9.5987465e+11
lambda = 2.3231e-08; f =   9.5987465e+11
lambda = 7.7435e-09; f =   9.5987465e+11
lambda = 2.5812e-09; f =   9.5987465e+11
lambda = -6.2723e-07; f =   9.5987465e+11
lambda = -2.0908e-07; f =   9.5987465e+11
lambda = -6.9692e-08; f =   9.5987465e+11
lambda = -2.3231e-08; f =   9.5987465e+11
lambda = -7.7435e-09; f =   9.5987465e+11
lambda = -2.5812e-09; f =   9.5987465e+11
Norm of dx 0.0057865
=======================================
(1) New value of the obj. func. on iteration 0: 959874651570.463500977
(2) Old value: 959874651570.463500977
(3) Downhill improvement: 0.000000000
(4) Seconds to complete one iteration: 0.0000
(5) Current time of day: Thu Nov 2 09:25:52 2017

Convergence (improvement < crit 1.0000e-06) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 14389057135359648873228288.000000000, Norm of gradient: 536452367603306.375000000
lambda =   1; f =   5.1900000e+302
lambda =   0.33333; f =   5.1900000e+302
lambda =   0.11111; f =   5.1900000e+302
lambda = 0.037037; f =   5.1900000e+302
lambda = 0.012346; f =   5.1900000e+302
lambda = 0.0041152; f =   5.1900000e+302
lambda = 0.0013717; f =   5.1900000e+302
lambda = 0.00045725; f =   5.1900000e+302
lambda = 0.00015242; f =   5.1900000e+302
lambda = 5.0805e-05; f =   5.1900000e+302
lambda = 1.6935e-05; f =   5.1900000e+302
lambda = 5.645e-06; f =   5.1900000e+302
lambda = 1.8817e-06; f =   5.1900000e+302
lambda = 6.2723e-07; f =   5.1900000e+302
lambda = 2.0908e-07; f =   5.1900000e+302
lambda = 6.9692e-08; f =   5.1900000e+302
lambda = 2.3231e-08; f =   5.1900000e+302
lambda = 7.7435e-09; f =   5.1900000e+302
lambda = 2.5812e-09; f =   5.1900000e+302
lambda = -6.2723e-07; f =   9.4170117e+13
lambda = -2.0908e-07; f =   9.4170174e+13
lambda = -6.9692e-08; f =   9.4170193e+13

```
lambda = -2.3231e-08; f =      9.4170199e+13
lambda = -7.7435e-09; f =      9.4170201e+13
lambda = -2.5812e-09; f =      9.4170202e+13
Norm of dx 5.3645e+09
======================================
 (1) New value of the obj. func. on iteration 0: 959874651570.463500977
 (2) Old value: 959874651570.463500977
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 3.0000
 (5) Current time of day: Thu Nov  2 09:25:56 2017


Convergence (improvement < crit 1.0000e-06) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 14389057135359648732228288.000000000, Norm of gradient: 536452367603306.375000000
lambda =        1; f =     5.1900000e+302
lambda =   0.33333; f =     5.1900000e+302
lambda =   0.11111; f =     5.1900000e+302
lambda =  0.037037; f =     5.1900000e+302
lambda =  0.012346; f =     5.1900000e+302
lambda =  0.0041152; f =     5.1900000e+302
lambda =  0.0013717; f =     5.1900000e+302
lambda = 0.00045725; f =      5.1900000e+302
lambda = 0.00015242; f =      5.1900000e+302
lambda = 5.0805e-05; f =     5.1900000e+302
lambda = 1.6935e-05; f =     5.1900000e+302
lambda =  5.645e-06; f =     5.1900000e+302
lambda = 1.8817e-06; f =     5.1900000e+302
lambda = 6.2723e-07; f =     5.1900000e+302
lambda = 2.0908e-07; f =     5.1900000e+302
lambda = 6.9692e-08; f =     5.1900000e+302
lambda = 2.3231e-08; f =     5.1900000e+302
lambda = 7.7435e-09; f =     5.1900000e+302
lambda = 2.5812e-09; f =     5.1900000e+302
lambda = -6.2723e-07; f =      9.4170117e+13
lambda = -2.0908e-07; f =      9.4170174e+13
lambda = -6.9692e-08; f =      9.4170193e+13
lambda = -2.3231e-08; f =      9.4170199e+13
lambda = -7.7435e-09; f =      9.4170201e+13
lambda = -2.5812e-09; f =      9.4170202e+13
Norm of dx 5.3645e+09
======================================
 (1) New value of the obj. func. on iteration 0: 959874651570.463500977
 (2) Old value: 959874651570.463500977
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 2.0000
 (5) Current time of day: Thu Nov  2 09:25:59 2017


Convergence (improvement < crit 1.0000e-03) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement:    1.674160361, Norm of gradient:    578.646759481
lambda =        1; f =     1.0000000e+300
lambda =   0.33333; f =     1.0000000e+300
lambda =   0.11111; f =     1.0000000e+300
lambda =  0.037037; f =     1.0000000e+300
lambda =  0.012346; f =     1.0000000e+300
lambda =  0.0041152; f =     1.0000000e+300
lambda =  0.0013717; f =     1.0000000e+300
lambda = 0.00045725; f =      1.0000000e+300
lambda = 0.00015242; f =      1.0000000e+300
lambda = 5.0805e-05; f =     1.0000000e+300
lambda = 1.6935e-05; f =     1.0000000e+300
lambda =  5.645e-06; f =     1.0000000e+300
lambda = 1.8817e-06; f =     9.5987465e+11
lambda = 6.2723e-07; f =     9.5987465e+11
lambda = 2.0908e-07; f =     9.5987465e+11
lambda = 6.9692e-08; f =     9.5987465e+11
lambda = 2.3231e-08; f =     9.5987465e+11
```

```
lambda = 7.7435e-09; f =      9.5987465e+11
lambda = 2.5812e-09; f =      9.5987465e+11
lambda = -6.2723e-07; f =      9.5987465e+11
lambda = -2.0908e-07; f =      9.5987465e+11
lambda = -6.9692e-08; f =      9.5987465e+11
lambda = -2.3231e-08; f =      9.5987465e+11
lambda = -7.7435e-09; f =      9.5987465e+11
lambda = -2.5812e-09; f =      9.5987465e+11
Norm of dx  0.0057865
=======================================
 (1) New value of the obj. func. on iteration 0: 959874651570.463500977
 (2) Old value: 959874651570.463500977
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 1.0000
 (5) Current time of day: Thu Nov  2 09:26:00 2017


Convergence (improvement < crit 1.0000e-03) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 14389057135359648732228288.000000000, Norm of gradient: 536452367603306.375000000
lambda =        1; f =     5.1900000e+302
lambda =   0.33333; f =     5.1900000e+302
lambda =   0.11111; f =     5.1900000e+302
lambda =   0.037037; f =     5.1900000e+302
lambda =   0.012346; f =     5.1900000e+302
lambda = 0.0041152; f =     5.1900000e+302
lambda = 0.0013717; f =     5.1900000e+302
lambda = 0.00045725; f =      5.1900000e+302
lambda = 0.00015242; f =      5.1900000e+302
lambda = 5.0805e-05; f =     5.1900000e+302
lambda = 1.6935e-05; f =     5.1900000e+302
lambda =  5.645e-06; f =     5.1900000e+302
lambda = 1.8817e-06; f =     5.1900000e+302
lambda = 6.2723e-07; f =     5.1900000e+302
lambda = 2.0908e-07; f =     5.1900000e+302
lambda = 6.9692e-08; f =     5.1900000e+302
lambda = 2.3231e-08; f =     5.1900000e+302
lambda = 7.7435e-09; f =     5.1900000e+302
lambda = 2.5812e-09; f =     5.1900000e+302
lambda = -6.2723e-07; f =      9.4170117e+13
lambda = -2.0908e-07; f =      9.4170174e+13
lambda = -6.9692e-08; f =      9.4170193e+13
lambda = -2.3231e-08; f =      9.4170199e+13
lambda = -7.7435e-09; f =      9.4170201e+13
lambda = -2.5812e-09; f =      9.4170202e+13
Norm of dx 5.3645e+09
=======================================
 (1) New value of the obj. func. on iteration 0: 959874651570.463500977
 (2) Old value: 959874651570.463500977
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 2.0000
 (5) Current time of day: Thu Nov  2 09:26:03 2017


Convergence (improvement < crit 1.0000e-03) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 14389057135359648732228288.000000000, Norm of gradient: 536452367603306.375000000
lambda =        1; f =     5.1900000e+302
lambda =   0.33333; f =     5.1900000e+302
lambda =   0.11111; f =     5.1900000e+302
lambda =   0.037037; f =     5.1900000e+302
lambda =   0.012346; f =     5.1900000e+302
lambda = 0.0041152; f =     5.1900000e+302
lambda = 0.0013717; f =     5.1900000e+302
lambda = 0.00045725; f =      5.1900000e+302
lambda = 0.00015242; f =      5.1900000e+302
lambda = 5.0805e-05; f =     5.1900000e+302
lambda = 1.6935e-05; f =     5.1900000e+302
lambda =  5.645e-06; f =     5.1900000e+302
```

```
lambda = 1.8817e-06; f =    5.1900000e+302
lambda = 6.2723e-07; f =    5.1900000e+302
lambda = 2.0908e-07; f =    5.1900000e+302
lambda = 6.9692e-08; f =    5.1900000e+302
lambda = 2.3231e-08; f =    5.1900000e+302
lambda = 7.7435e-09; f =    5.1900000e+302
lambda = 2.5812e-09; f =    5.1900000e+302
lambda = -6.2723e-07; f =    9.4170117e+13
lambda = -2.0908e-07; f =    9.4170174e+13
lambda = -6.9692e-08; f =    9.4170193e+13
lambda = -2.3231e-08; f =    9.4170199e+13
lambda = -7.7435e-09; f =    9.4170201e+13
lambda = -2.5812e-09; f =    9.4170202e+13
Norm of dx 5.3645e+09
=======================================
 (1) New value of the obj. func. on iteration 0: 959874651570.463500977
 (2) Old value: 959874651570.463500977
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 2.0000
 (5) Current time of day: Thu Nov  2 09:26:07 2017


Convergence (improvement < crit 1.0000e-04) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement:     1.674160361, Norm of gradient:     578.646759481
lambda =        1; f =    1.0000000e+300
lambda =   0.33333; f =    1.0000000e+300
lambda =   0.11111; f =    1.0000000e+300
lambda =   0.037037; f =    1.0000000e+300
lambda =   0.012346; f =    1.0000000e+300
lambda =   0.0041152; f =    1.0000000e+300
lambda =   0.0013717; f =    1.0000000e+300
lambda = 0.00045725; f =    1.0000000e+300
lambda = 0.00015242; f =    1.0000000e+300
lambda = 5.0805e-05; f =    1.0000000e+300
lambda = 1.6935e-05; f =    1.0000000e+300
lambda =  5.645e-06; f =    1.0000000e+300
lambda = 1.8817e-06; f =    9.5987465e+11
lambda = 6.2723e-07; f =    9.5987465e+11
lambda = 2.0908e-07; f =    9.5987465e+11
lambda = 6.9692e-08; f =    9.5987465e+11
lambda = 2.3231e-08; f =    9.5987465e+11
lambda = 7.7435e-09; f =    9.5987465e+11
lambda = 2.5812e-09; f =    9.5987465e+11
lambda = -6.2723e-07; f =    9.5987465e+11
lambda = -2.0908e-07; f =    9.5987465e+11
lambda = -6.9692e-08; f =    9.5987465e+11
lambda = -2.3231e-08; f =    9.5987465e+11
lambda = -7.7435e-09; f =    9.5987465e+11
lambda = -2.5812e-09; f =    9.5987465e+11
Norm of dx  0.0057865
=======================================
 (1) New value of the obj. func. on iteration 0: 959874651570.463500977
 (2) Old value: 959874651570.463500977
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 0.0000
 (5) Current time of day: Thu Nov  2 09:26:07 2017


Convergence (improvement < crit 1.0000e-04) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 14389057135359648732228288.000000000, Norm of gradient: 536452367603306.375000000
lambda =        1; f =    5.1900000e+302
lambda =   0.33333; f =    5.1900000e+302
lambda =   0.11111; f =    5.1900000e+302
lambda =   0.037037; f =    5.1900000e+302
lambda =   0.012346; f =    5.1900000e+302
lambda =   0.0041152; f =    5.1900000e+302
lambda =   0.0013717; f =    5.1900000e+302
```

```
lambda = 0.00045725; f =      5.1900000e+302
lambda = 0.00015242; f =      5.1900000e+302
lambda = 5.0805e-05; f =      5.1900000e+302
lambda = 1.6935e-05; f =      5.1900000e+302
lambda =  5.645e-06; f =      5.1900000e+302
lambda = 1.8817e-06; f =      5.1900000e+302
lambda = 6.2723e-07; f =      5.1900000e+302
lambda = 2.0908e-07; f =      5.1900000e+302
lambda = 6.9692e-08; f =      5.1900000e+302
lambda = 2.3231e-08; f =      5.1900000e+302
lambda = 7.7435e-09; f =      5.1900000e+302
lambda = 2.5812e-09; f =      5.1900000e+302
lambda = -6.2723e-07; f =      9.4170117e+13
lambda = -2.0908e-07; f =      9.4170174e+13
lambda = -6.9692e-08; f =      9.4170193e+13
lambda = -2.3231e-08; f =      9.4170199e+13
lambda = -7.7435e-09; f =      9.4170201e+13
lambda = -2.5812e-09; f =      9.4170202e+13
Norm of dx 5.3645e+09
=======================================
 (1) New value of the obj. func. on iteration 0: 959874651570.463500977
 (2) Old value: 959874651570.463500977
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 2.0000
 (5) Current time of day: Thu Nov  2 09:26:11 2017


Convergence (improvement < crit 1.0000e-04) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 14389057135359648732282288.000000000, Norm of gradient: 536452367603306.375000000
lambda =        1; f =      5.1900000e+302
lambda =  0.33333; f =      5.1900000e+302
lambda =  0.11111; f =      5.1900000e+302
lambda = 0.037037; f =      5.1900000e+302
lambda = 0.012346; f =      5.1900000e+302
lambda = 0.0041152; f =      5.1900000e+302
lambda = 0.0013717; f =      5.1900000e+302
lambda = 0.00045725; f =      5.1900000e+302
lambda = 0.00015242; f =      5.1900000e+302
lambda = 5.0805e-05; f =      5.1900000e+302
lambda = 1.6935e-05; f =      5.1900000e+302
lambda =  5.645e-06; f =      5.1900000e+302
lambda = 1.8817e-06; f =      5.1900000e+302
lambda = 6.2723e-07; f =      5.1900000e+302
lambda = 2.0908e-07; f =      5.1900000e+302
lambda = 6.9692e-08; f =      5.1900000e+302
lambda = 2.3231e-08; f =      5.1900000e+302
lambda = 7.7435e-09; f =      5.1900000e+302
lambda = 2.5812e-09; f =      5.1900000e+302
lambda = -6.2723e-07; f =      9.4170117e+13
lambda = -2.0908e-07; f =      9.4170174e+13
lambda = -6.9692e-08; f =      9.4170193e+13
lambda = -2.3231e-08; f =      9.4170199e+13
lambda = -7.7435e-09; f =      9.4170201e+13
lambda = -2.5812e-09; f =      9.4170202e+13
Norm of dx 5.3645e+09
=======================================
 (1) New value of the obj. func. on iteration 0: 959874651570.463500977
 (2) Old value: 959874651570.463500977
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 2.0000
 (5) Current time of day: Thu Nov  2 09:26:15 2017


Convergence (improvement < crit 1.0000e-05) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement:     1.674160361, Norm of gradient:     578.646759481
lambda =        1; f =      1.0000000e+300
lambda =  0.33333; f =      1.0000000e+300
```

```
lambda =   0.11111; f =      1.0000000e+300
lambda =   0.037037; f =     1.0000000e+300
lambda =   0.012346; f =     1.0000000e+300
lambda = 0.0041152; f =      1.0000000e+300
lambda = 0.0013717; f =      1.0000000e+300
lambda = 0.00045725; f =      1.0000000e+300
lambda = 0.00015242; f =      1.0000000e+300
lambda = 5.0805e-05; f =      1.0000000e+300
lambda = 1.6935e-05; f =      1.0000000e+300
lambda =  5.645e-06; f =      1.0000000e+300
lambda = 1.8817e-06; f =      9.5987465e+11
lambda = 6.2723e-07; f =      9.5987465e+11
lambda = 2.0908e-07; f =      9.5987465e+11
lambda = 6.9692e-08; f =      9.5987465e+11
lambda = 2.3231e-08; f =      9.5987465e+11
lambda = 7.7435e-09; f =      9.5987465e+11
lambda = 2.5812e-09; f =      9.5987465e+11
lambda = -6.2723e-07; f =      9.5987465e+11
lambda = -2.0908e-07; f =      9.5987465e+11
lambda = -6.9692e-08; f =      9.5987465e+11
lambda = -2.3231e-08; f =      9.5987465e+11
lambda = -7.7435e-09; f =      9.5987465e+11
lambda = -2.5812e-09; f =      9.5987465e+11
Norm of dx  0.0057865
=====================================
 (1) New value of the obj. func. on iteration 0: 959874651570.463500977
 (2) Old value: 959874651570.463500977
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 0.0000
 (5) Current time of day: Thu Nov  2 09:26:15 2017


Convergence (improvement < crit 1.0000e-05) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 14389057135359648732288.000000000, Norm of gradient: 536452367603306.375000000
lambda =        1; f =      5.1900000e+302
lambda =   0.33333; f =      5.1900000e+302
lambda =   0.11111; f =      5.1900000e+302
lambda =   0.037037; f =      5.1900000e+302
lambda =   0.012346; f =      5.1900000e+302
lambda = 0.0041152; f =      5.1900000e+302
lambda = 0.0013717; f =      5.1900000e+302
lambda = 0.00045725; f =      5.1900000e+302
lambda = 0.00015242; f =      5.1900000e+302
lambda = 5.0805e-05; f =      5.1900000e+302
lambda = 1.6935e-05; f =      5.1900000e+302
lambda =  5.645e-06; f =      5.1900000e+302
lambda = 1.8817e-06; f =      5.1900000e+302
lambda = 6.2723e-07; f =      5.1900000e+302
lambda = 2.0908e-07; f =      5.1900000e+302
lambda = 6.9692e-08; f =      5.1900000e+302
lambda = 2.3231e-08; f =      5.1900000e+302
lambda = 7.7435e-09; f =      5.1900000e+302
lambda = 2.5812e-09; f =      5.1900000e+302
lambda = -6.2723e-07; f =      9.4170117e+13
lambda = -2.0908e-07; f =      9.4170174e+13
lambda = -6.9692e-08; f =      9.4170193e+13
lambda = -2.3231e-08; f =      9.4170199e+13
lambda = -7.7435e-09; f =      9.4170201e+13
lambda = -2.5812e-09; f =      9.4170202e+13
Norm of dx 5.3645e+09
=====================================
 (1) New value of the obj. func. on iteration 0: 959874651570.463500977
 (2) Old value: 959874651570.463500977
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 2.0000
 (5) Current time of day: Thu Nov  2 09:26:19 2017


Convergence (improvement < crit 1.0000e-05) with return code 6.
```

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 14389057135359648873228288.000000000, Norm of gradient: 536452367603306.375000000
lambda =   1; f =   5.1900000e+302
lambda =   0.33333; f =   5.1900000e+302
lambda =   0.11111; f =   5.1900000e+302
lambda = 0.037037; f =   5.1900000e+302
lambda = 0.012346; f =   5.1900000e+302
lambda = 0.0041152; f =   5.1900000e+302
lambda = 0.0013717; f =   5.1900000e+302
lambda = 0.00045725; f =   5.1900000e+302
lambda = 0.00015242; f =   5.1900000e+302
lambda = 5.0805e-05; f =   5.1900000e+302
lambda = 1.6935e-05; f =   5.1900000e+302
lambda = 5.645e-06; f =   5.1900000e+302
lambda = 1.8817e-06; f =   5.1900000e+302
lambda = 6.2723e-07; f =   5.1900000e+302
lambda = 2.0908e-07; f =   5.1900000e+302
lambda = 6.9692e-08; f =   5.1900000e+302
lambda = 2.3231e-08; f =   5.1900000e+302
lambda = 7.7435e-09; f =   5.1900000e+302
lambda = 2.5812e-09; f =   5.1900000e+302
lambda = -6.2723e-07; f =   9.4170117e+13
lambda = -2.0908e-07; f =   9.4170174e+13
lambda = -6.9692e-08; f =   9.4170193e+13
lambda = -2.3231e-08; f =   9.4170199e+13
lambda = -7.7435e-09; f =   9.4170201e+13
lambda = -2.5812e-09; f =   9.4170202e+13
Norm of dx 5.3645e+09
======================================
 (1) New value of the obj. func. on iteration 0: 959874651570.463500977
 (2) Old value: 959874651570.463500977
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 3.0000
 (5) Current time of day: Thu Nov 2 09:26:23 2017

Convergence (improvement < crit 1.0000e-06) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 1.674160361, Norm of gradient: 578.646759481
lambda =   1; f =   1.0000000e+300
lambda =   0.33333; f =   1.0000000e+300
lambda =   0.11111; f =   1.0000000e+300
lambda = 0.037037; f =   1.0000000e+300
lambda = 0.012346; f =   1.0000000e+300
lambda = 0.0041152; f =   1.0000000e+300
lambda = 0.0013717; f =   1.0000000e+300
lambda = 0.00045725; f =   1.0000000e+300
lambda = 0.00015242; f =   1.0000000e+300
lambda = 5.0805e-05; f =   1.0000000e+300
lambda = 1.6935e-05; f =   1.0000000e+300
lambda = 5.645e-06; f =   1.0000000e+300
lambda = 1.8817e-06; f =   9.5987465e+11
lambda = 6.2723e-07; f =   9.5987465e+11
lambda = 2.0908e-07; f =   9.5987465e+11
lambda = 6.9692e-08; f =   9.5987465e+11
lambda = 2.3231e-08; f =   9.5987465e+11
lambda = 7.7435e-09; f =   9.5987465e+11
lambda = 2.5812e-09; f =   9.5987465e+11
lambda = -6.2723e-07; f =   9.5987465e+11
lambda = -2.0908e-07; f =   9.5987465e+11
lambda = -6.9692e-08; f =   9.5987465e+11
lambda = -2.3231e-08; f =   9.5987465e+11
lambda = -7.7435e-09; f =   9.5987465e+11
lambda = -2.5812e-09; f =   9.5987465e+11
Norm of dx 0.0057865
======================================
 (1) New value of the obj. func. on iteration 0: 959874651570.463500977
 (2) Old value: 959874651570.463500977
 (3) Downhill improvement: 0.000000000

(4) Seconds to complete one iteration: 0.0000
 (5) Current time of day: Thu Nov 2 09:26:23 2017

Convergence (improvement < crit 1.0000e-06) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 143890571353596487322288.000000000, Norm of gradient: 536452367603306.375000000
lambda =   1; f =   5.1900000e+302
lambda =   0.33333; f =   5.1900000e+302
lambda =   0.11111; f =   5.1900000e+302
lambda = 0.037037; f =   5.1900000e+302
lambda = 0.012346; f =   5.1900000e+302
lambda = 0.0041152; f =   5.1900000e+302
lambda = 0.0013717; f =   5.1900000e+302
lambda = 0.00045725; f =   5.1900000e+302
lambda = 0.00015242; f =   5.1900000e+302
lambda = 5.0805e-05; f =   5.1900000e+302
lambda = 1.6935e-05; f =   5.1900000e+302
lambda = 5.645e-06; f =   5.1900000e+302
lambda = 1.8817e-06; f =   5.1900000e+302
lambda = 6.2723e-07; f =   5.1900000e+302
lambda = 2.0908e-07; f =   5.1900000e+302
lambda = 6.9692e-08; f =   5.1900000e+302
lambda = 2.3231e-08; f =   5.1900000e+302
lambda = 7.7435e-09; f =   5.1900000e+302
lambda = 2.5812e-09; f =   5.1900000e+302
lambda = -6.2723e-07; f =   9.4170117e+13
lambda = -2.0908e-07; f =   9.4170174e+13
lambda = -6.9692e-08; f =   9.4170193e+13
lambda = -2.3231e-08; f =   9.4170199e+13
lambda = -7.7435e-09; f =   9.4170201e+13
lambda = -2.5812e-09; f =   9.4170202e+13
Norm of dx 5.3645e+09
=======================================
 (1) New value of the obj. func. on iteration 0: 959874651570.463500977
 (2) Old value: 959874651570.463500977
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 3.0000
 (5) Current time of day: Thu Nov 2 09:26:27 2017

Convergence (improvement < crit 1.0000e-06) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 152897148798940569665360.000000000, Norm of gradient: 552986706529082.000000000
lambda =   1; f =   5.1900000e+302
lambda =   0.33333; f =   5.1900000e+302
lambda =   0.11111; f =   5.1900000e+302
lambda = 0.037037; f =   5.1900000e+302
lambda = 0.012346; f =   5.1900000e+302
lambda = 0.0041152; f =   5.1900000e+302
lambda = 0.0013717; f =   5.1900000e+302
lambda = 0.00045725; f =   5.1900000e+302
lambda = 0.00015242; f =   5.1900000e+302
lambda = 5.0805e-05; f =   5.1900000e+302
lambda = 1.6935e-05; f =   5.1900000e+302
lambda = 5.645e-06; f =   5.1900000e+302
lambda = 1.8817e-06; f =   5.1900000e+302
lambda = 6.2723e-07; f =   5.1900000e+302
lambda = 2.0908e-07; f =   5.1900000e+302
lambda = 6.9692e-08; f =   5.1900000e+302
lambda = 2.3231e-08; f =   5.1900000e+302
lambda = 7.7435e-09; f =   5.1900000e+302
lambda = 2.5812e-09; f =   5.1900000e+302
lambda = -6.2723e-07; f =   8.8260894e+13
lambda = -2.0908e-07; f =   8.8260859e+13
lambda = -6.9692e-08; f =   8.8260848e+13
lambda = -2.3231e-08; f =   8.8260844e+13
lambda = -7.7435e-09; f =   8.8260842e+13
lambda = -2.5812e-09; f =   8.8260842e+13

Norm of dx 5.5299e+09
=====================================
 (1) New value of the obj. func. on iteration 0: 988776681266.171020508
 (2) Old value: 988776681266.171020508
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 3.0000
 (5) Current time of day: Thu Nov 2 09:26:31 2017

Convergence (improvement < crit 1.0000e-03) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 1.660173759, Norm of gradient: 576.224567138
lambda =   1; f =   1.0000000e+300
lambda =   0.33333; f =   1.0000000e+300
lambda =   0.11111; f =   1.0000000e+300
lambda = 0.037037; f =   1.0000000e+300
lambda = 0.012346; f =   9.8877668e+11
lambda = 0.023866; f =   1.0000000e+300
lambda =   0.01607; f =   1.0000000e+300
lambda = 0.012676; f =   9.8877668e+11
lambda = 0.014615; f =   1.0000000e+300
lambda = 0.013418; f =   9.8877668e+11
lambda = 0.014124; f =   1.0000000e+300
lambda = 0.013696; f =   1.0000000e+300
lambda = 0.013446; f =   9.8877668e+11
lambda = 0.013596; f =   1.0000000e+300
Norm of dx 0.0057622
======= Random search takes place now. =======
Cliff. Perturbing search direction.
Predicted improvement: 1.820260906, Norm of gradient: 576.224567138
lambda =   1; f =   1.0000000e+300
lambda =   0.33333; f =   1.0000000e+300
lambda =   0.11111; f =   1.0000000e+300
lambda = 0.037037; f =   1.0000000e+300
lambda = 0.012346; f =   9.8877668e+11
lambda = 0.023866; f =   1.0000000e+300
lambda =   0.01607; f =   1.0000000e+300
lambda = 0.012676; f =   1.0000000e+300
lambda = 0.012444; f =   9.8877668e+11
lambda = 0.012582; f =   1.0000000e+300
Norm of dx 0.0063436
Cliff again. Try traversing.
Predicted improvement: 3606.825744905, Norm of gradient: 84.933217823
lambda =   1; f =   1.0000000e+300
lambda =   0.33333; f =   1.0000000e+300
lambda =   0.11111; f =   1.0000000e+300
lambda = 0.037037; f =   1.0000000e+300
lambda = 0.012346; f =   1.0000000e+300
lambda = 0.0041152; f =   1.0000000e+300
lambda = 0.0013717; f =   1.0000000e+300
lambda = 0.00045725; f =   1.0000000e+300
lambda = 0.00015242; f =   9.8877668e+11
lambda = 0.00029465; f =   1.0000000e+300
lambda = 0.0001984; f =   9.8877668e+11
lambda = 0.00025153; f =   1.0000000e+300
lambda = 0.00021815; f =   1.0000000e+300
lambda = 0.00020029; f =   9.8877668e+11
lambda = 0.00021082; f =   9.8877668e+11
lambda = 0.00022191; f =   1.0000000e+300
lambda = 0.00021519; f =   1.0000000e+300
lambda = 0.00021126; f =   9.8877668e+11
lambda = 0.00021361; f =   9.8877668e+11
lambda = 0.00021599; f =   1.0000000e+300
Norm of dx   84.933
=====================================
 (1) New value of the obj. func. on iteration 0: 988776681264.518188477
 (2) Old value: 988776681266.171020508
 (3) Downhill improvement: 1.652832031
 (4) Seconds to complete one iteration: 0.0000
 (5) Current time of day: Thu Nov 2 09:26:31 2017

Warning: Back adjustment of stepsize didn't finish.
Predicted improvement: 1.670449972, Norm of gradient: 578.005185470
lambda =   1; f =   1.0000000e+300
lambda =   0.33333; f =   1.0000000e+300
lambda =   0.11111; f =   1.0000000e+300
lambda =   0.037037; f =   1.0000000e+300
lambda =   0.012346; f =   9.8877668e+11
Norm of dx 0.0057801
======================================
 (1) New value of the obj. func. on iteration 1: 988776681264.477050781
 (2) Old value: 988776681264.518188477
 (3) Downhill improvement: 0.041137695
 (4) Seconds to complete one iteration: 0.0000
 (5) Current time of day: Thu Nov 2 09:26:31 2017

Predicted improvement: 1.665914431, Norm of gradient: 577.219963483
lambda =   1; f =   1.0000000e+300
lambda =   0.33333; f =   1.0000000e+300
lambda =   0.11111; f =   1.0000000e+300
lambda =   0.037037; f =   1.0000000e+300
lambda =   0.012346; f =   1.0000000e+300
lambda = 0.0041152; f =   1.0000000e+300
lambda = 0.0013717; f =   9.8877668e+11
lambda = 0.0026518; f =   9.8877668e+11
lambda = 0.0051265; f =   1.0000000e+300
lambda = 0.0034519; f =   9.8877668e+11
lambda = 0.0043764; f =   1.0000000e+300
lambda = 0.0037956; f =   1.0000000e+300
lambda = 0.0034848; f =   9.8877668e+11
lambda = 0.0036681; f =   1.0000000e+300
lambda = 0.003557; f =   9.8877668e+11
lambda = 0.0036232; f =   9.8877668e+11
lambda = 0.0036907; f =   1.0000000e+300
lambda = 0.0036501; f =   1.0000000e+300
Norm of dx 0.0057722
======= Random search takes place now. =======
Cliff. Perturbing search direction.
Predicted improvement: 2.729062477, Norm of gradient: 577.219963483
lambda =   1; f =   1.0000000e+300
lambda =   0.33333; f =   1.0000000e+300
lambda =   0.11111; f =   1.0000000e+300
lambda =   0.037037; f =   1.0000000e+300
lambda =   0.012346; f =   1.0000000e+300
lambda = 0.0041152; f =   1.0000000e+300
lambda = 0.0013717; f =   9.8877668e+11
lambda = 0.0026518; f =   1.0000000e+300
lambda = 0.0017856; f =   9.8877668e+11
lambda = 0.0022638; f =   1.0000000e+300
lambda = 0.0019634; f =   9.8877668e+11
lambda = 0.0021385; f =   1.0000000e+300
lambda = 0.0020316; f =   9.8877668e+11
lambda = 0.0020951; f =   1.0000000e+300
lambda = 0.0020568; f =   9.8877668e+11
lambda = 0.0020797; f =   1.0000000e+300
Norm of dx 0.0094597
Cliff again. Try traversing.
Predicted improvement: 148678.261130293, Norm of gradient: 545.304064042
lambda =   1; f =   1.0000000e+300
lambda =   0.33333; f =   1.0000000e+300
lambda =   0.11111; f =   1.0000000e+300
lambda =   0.037037; f =   1.0000000e+300
lambda =   0.012346; f =   1.0000000e+300
lambda = 0.0041152; f =   1.0000000e+300
lambda = 0.0013717; f =   1.0000000e+300
lambda = 0.00045725; f =   1.0000000e+300
lambda = 0.00015242; f =   1.0000000e+300
lambda = 5.0805e-05; f =   1.0000000e+300

```
lambda = 1.6935e-05; f =    1.0000000e+300
lambda = 5.645e-06; f =     1.0000000e+300
lambda = 1.8817e-06; f =    1.0000000e+300
lambda = 6.2723e-07; f =    1.0000000e+300
lambda = 2.0908e-07; f =    9.8877668e+11
lambda = 4.0418e-07; f =    9.8877668e+11
lambda = 7.8135e-07; f =    1.0000000e+300
lambda = 5.2612e-07; f =    9.8877668e+11
lambda = 6.6703e-07; f =    1.0000000e+300
lambda = 5.7851e-07; f =    1.0000000e+300
lambda = 5.3114e-07; f =    9.8877668e+11
lambda = 5.5907e-07; f =    1.0000000e+300
lambda = 5.4214e-07; f =    9.8877668e+11
lambda = 5.5224e-07; f =    9.8877668e+11
lambda = 5.6252e-07; f =    1.0000000e+300
lambda = 5.5633e-07; f =    1.0000000e+300
Norm of dx     545.3
======================================
 (1) New value of the obj. func. on iteration 2: 988776681264.314331055
 (2) Old value: 988776681264.477050781
 (3) Downhill improvement: 0.162719727
 (4) Seconds to complete one iteration: 0.0000
 (5) Current time of day: Thu Nov  2 09:26:31 2017


Warning: Back adjustment of stepsize didn't finish.
Predicted improvement:    1.665914431, Norm of gradient:    577.219963483
lambda =       1; f =    1.0000000e+300
lambda =   0.33333; f =    1.0000000e+300
lambda =   0.11111; f =    1.0000000e+300
lambda =  0.037037; f =    1.0000000e+300
lambda =  0.012346; f =    1.0000000e+300
lambda =  0.0041152; f =    1.0000000e+300
lambda =  0.0013717; f =    1.0000000e+300
lambda = 0.00045725; f =    1.0000000e+300
lambda = 0.00015242; f =    1.0000000e+300
lambda = 5.0805e-05; f =    1.0000000e+300
lambda = 1.6935e-05; f =    1.0000000e+300
lambda = 5.645e-06; f =    9.8877668e+11
Norm of dx  0.0057722
======================================
 (1) New value of the obj. func. on iteration 3: 988776681264.314331055
 (2) Old value: 988776681264.314331055
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 0.0000
 (5) Current time of day: Thu Nov  2 09:26:31 2017


Convergence (improvement < crit 1.0000e-03) with return code 0.
Predicted improvement: 1528971487989405696655360.000000000, Norm of gradient: 552986706529082.000000000
lambda =       1; f =    5.1900000e+302
lambda =   0.33333; f =    5.1900000e+302
lambda =   0.11111; f =    5.1900000e+302
lambda =  0.037037; f =    5.1900000e+302
lambda =  0.012346; f =    5.1900000e+302
lambda =  0.0041152; f =    5.1900000e+302
lambda =  0.0013717; f =    5.1900000e+302
lambda = 0.00045725; f =    5.1900000e+302
lambda = 0.00015242; f =    5.1900000e+302
lambda = 5.0805e-05; f =    5.1900000e+302
lambda = 1.6935e-05; f =    5.1900000e+302
lambda = 5.645e-06; f =    5.1900000e+302
lambda = 1.8817e-06; f =    5.1900000e+302
lambda = 6.2723e-07; f =    5.1900000e+302
lambda = 2.0908e-07; f =    5.1900000e+302
lambda = 6.9692e-08; f =    5.1900000e+302
lambda = 2.3231e-08; f =    5.1900000e+302
lambda = 7.7435e-09; f =    5.1900000e+302
lambda = 2.5812e-09; f =    5.1900000e+302
lambda = -6.2723e-07; f =    8.8260894e+13
```

```
lambda = -2.0908e-07; f =      8.8260859e+13
lambda = -6.9692e-08; f =      8.8260848e+13
lambda = -2.3231e-08; f =      8.8260844e+13
lambda = -7.7435e-09; f =      8.8260842e+13
lambda = -2.5812e-09; f =      8.8260842e+13
Norm of dx 5.5299e+09
=====================================
 (1) New value of the obj. func. on iteration 0: 988776681264.314331055
 (2) Old value: 988776681264.314331055
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 3.0000
 (5) Current time of day: Thu Nov  2 09:26:35 2017


Convergence (improvement < crit 1.0000e-03) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement:     1.667002216, Norm of gradient:    577.408385111
lambda =       1; f =     1.0000000e+300
lambda =   0.33333; f =     1.0000000e+300
lambda =   0.11111; f =     1.0000000e+300
lambda =   0.037037; f =     1.0000000e+300
lambda =   0.012346; f =     1.0000000e+300
lambda =  0.0041152; f =     1.0000000e+300
lambda =  0.0013717; f =     1.0000000e+300
lambda = 0.00045725; f =     1.0000000e+300
lambda = 0.00015242; f =     1.0000000e+300
lambda = 5.0805e-05; f =     1.0000000e+300
lambda = 1.6935e-05; f =     1.0000000e+300
lambda =  5.645e-06; f =     9.8877668e+11
lambda = 1.8817e-06; f =     9.8877668e+11
lambda = 6.2723e-07; f =     9.8877668e+11
lambda = 2.0908e-07; f =     9.8877668e+11
lambda = 6.9692e-08; f =     9.8877668e+11
lambda = 2.3231e-08; f =     9.8877668e+11
lambda = 7.7435e-09; f =     9.8877668e+11
lambda = 2.5812e-09; f =     9.8877668e+11
lambda = -6.2723e-07; f =     9.8877668e+11
lambda = -2.0908e-07; f =     9.8877668e+11
lambda = -6.9692e-08; f =     9.8877668e+11
lambda = -2.3231e-08; f =     9.8877668e+11
lambda = -7.7435e-09; f =     9.8877668e+11
lambda = -2.5812e-09; f =     9.8877668e+11
Norm of dx  0.0057741
=====================================
 (1) New value of the obj. func. on iteration 0: 988776681264.314331055
 (2) Old value: 988776681264.314331055
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 0.0000
 (5) Current time of day: Thu Nov  2 09:26:35 2017


Convergence (improvement < crit 1.0000e-03) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 15289714879894056966655360.000000000, Norm of gradient: 552986706529082.000000000
lambda =       1; f =     5.1900000e+302
lambda =   0.33333; f =     5.1900000e+302
lambda =   0.11111; f =     5.1900000e+302
lambda =   0.037037; f =     5.1900000e+302
lambda =   0.012346; f =     5.1900000e+302
lambda =  0.0041152; f =     5.1900000e+302
lambda =  0.0013717; f =     5.1900000e+302
lambda = 0.00045725; f =     5.1900000e+302
lambda = 0.00015242; f =     5.1900000e+302
lambda = 5.0805e-05; f =     5.1900000e+302
lambda = 1.6935e-05; f =     5.1900000e+302
lambda =  5.645e-06; f =     5.1900000e+302
lambda = 1.8817e-06; f =     5.1900000e+302
lambda = 6.2723e-07; f =     5.1900000e+302
lambda = 2.0908e-07; f =     5.1900000e+302
```

```
lambda = 6.9692e-08; f =     5.1900000e+302
lambda = 2.3231e-08; f =     5.1900000e+302
lambda = 7.7435e-09; f =     5.1900000e+302
lambda = 2.5812e-09; f =     5.1900000e+302
lambda = -6.2723e-07; f =     8.8260894e+13
lambda = -2.0908e-07; f =     8.8260859e+13
lambda = -6.9692e-08; f =     8.8260848e+13
lambda = -2.3231e-08; f =     8.8260844e+13
lambda = -7.7435e-09; f =     8.8260842e+13
lambda = -2.5812e-09; f =     8.8260842e+13
Norm of dx 5.5299e+09
=====================================
 (1) New value of the obj. func. on iteration 0: 988776681264.314331055
 (2) Old value: 988776681264.314331055
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 3.0000
 (5) Current time of day: Thu Nov  2 09:26:39 2017


Convergence (improvement < crit 1.0000e-03) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 15289714879894056966655360.000000000, Norm of gradient: 552986706529082.000000000
lambda =        1; f =     5.1900000e+302
lambda =   0.33333; f =     5.1900000e+302
lambda =   0.11111; f =     5.1900000e+302
lambda =  0.037037; f =     5.1900000e+302
lambda =  0.012346; f =     5.1900000e+302
lambda = 0.0041152; f =     5.1900000e+302
lambda = 0.0013717; f =     5.1900000e+302
lambda = 0.00045725; f =     5.1900000e+302
lambda = 0.00015242; f =     5.1900000e+302
lambda = 5.0805e-05; f =     5.1900000e+302
lambda = 1.6935e-05; f =     5.1900000e+302
lambda =  5.645e-06; f =     5.1900000e+302
lambda = 1.8817e-06; f =     5.1900000e+302
lambda = 6.2723e-07; f =     5.1900000e+302
lambda = 2.0908e-07; f =     5.1900000e+302
lambda = 6.9692e-08; f =     5.1900000e+302
lambda = 2.3231e-08; f =     5.1900000e+302
lambda = 7.7435e-09; f =     5.1900000e+302
lambda = 2.5812e-09; f =     5.1900000e+302
lambda = -6.2723e-07; f =     8.8260894e+13
lambda = -2.0908e-07; f =     8.8260859e+13
lambda = -6.9692e-08; f =     8.8260848e+13
lambda = -2.3231e-08; f =     8.8260844e+13
lambda = -7.7435e-09; f =     8.8260842e+13
lambda = -2.5812e-09; f =     8.8260842e+13
Norm of dx 5.5299e+09
=====================================
 (1) New value of the obj. func. on iteration 0: 988776681264.314331055
 (2) Old value: 988776681264.314331055
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 3.0000
 (5) Current time of day: Thu Nov  2 09:26:43 2017


Convergence (improvement < crit 1.0000e-04) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement:    1.667002216, Norm of gradient:    577.408385111
lambda =        1; f =     1.0000000e+300
lambda =   0.33333; f =     1.0000000e+300
lambda =   0.11111; f =     1.0000000e+300
lambda =  0.037037; f =     1.0000000e+300
lambda =  0.012346; f =     1.0000000e+300
lambda = 0.0041152; f =     1.0000000e+300
lambda = 0.0013717; f =     1.0000000e+300
lambda = 0.00045725; f =     1.0000000e+300
lambda = 0.00015242; f =     1.0000000e+300
lambda = 5.0805e-05; f =     1.0000000e+300
```

```
lambda = 1.6935e-05; f =       1.0000000e+300
lambda = 5.645e-06; f =       9.8877668e+11
lambda = 1.8817e-06; f =       9.8877668e+11
lambda = 6.2723e-07; f =       9.8877668e+11
lambda = 2.0908e-07; f =       9.8877668e+11
lambda = 6.9692e-08; f =       9.8877668e+11
lambda = 2.3231e-08; f =       9.8877668e+11
lambda = 7.7435e-09; f =       9.8877668e+11
lambda = 2.5812e-09; f =       9.8877668e+11
lambda = -6.2723e-07; f =       9.8877668e+11
lambda = -2.0908e-07; f =       9.8877668e+11
lambda = -6.9692e-08; f =       9.8877668e+11
lambda = -2.3231e-08; f =       9.8877668e+11
lambda = -7.7435e-09; f =       9.8877668e+11
lambda = -2.5812e-09; f =       9.8877668e+11
Norm of dx  0.0057741
======================================
 (1) New value of the obj. func. on iteration 0: 988776681264.314331055
 (2) Old value: 988776681264.314331055
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 0.0000
 (5) Current time of day: Thu Nov  2 09:26:43 2017


Convergence (improvement < crit 1.0000e-04) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 1528971487989405696655360.000000000, Norm of gradient: 552986706529082.000000000
lambda =       1; f =       5.1900000e+302
lambda =    0.33333; f =       5.1900000e+302
lambda =    0.11111; f =       5.1900000e+302
lambda =  0.037037; f =       5.1900000e+302
lambda =  0.012346; f =       5.1900000e+302
lambda = 0.0041152; f =       5.1900000e+302
lambda = 0.0013717; f =       5.1900000e+302
lambda = 0.00045725; f =       5.1900000e+302
lambda = 0.00015242; f =       5.1900000e+302
lambda = 5.0805e-05; f =       5.1900000e+302
lambda = 1.6935e-05; f =       5.1900000e+302
lambda = 5.645e-06; f =       5.1900000e+302
lambda = 1.8817e-06; f =       5.1900000e+302
lambda = 6.2723e-07; f =       5.1900000e+302
lambda = 2.0908e-07; f =       5.1900000e+302
lambda = 6.9692e-08; f =       5.1900000e+302
lambda = 2.3231e-08; f =       5.1900000e+302
lambda = 7.7435e-09; f =       5.1900000e+302
lambda = 2.5812e-09; f =       5.1900000e+302
lambda = -6.2723e-07; f =       8.8260894e+13
lambda = -2.0908e-07; f =       8.8260859e+13
lambda = -6.9692e-08; f =       8.8260848e+13
lambda = -2.3231e-08; f =       8.8260844e+13
lambda = -7.7435e-09; f =       8.8260842e+13
lambda = -2.5812e-09; f =       8.8260842e+13
Norm of dx 5.5299e+09
======================================
 (1) New value of the obj. func. on iteration 0: 988776681264.314331055
 (2) Old value: 988776681264.314331055
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 3.0000
 (5) Current time of day: Thu Nov  2 09:26:47 2017


Convergence (improvement < crit 1.0000e-04) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 1528971487989405696655360.000000000, Norm of gradient: 552986706529082.000000000
lambda =       1; f =       5.1900000e+302
lambda =    0.33333; f =       5.1900000e+302
lambda =    0.11111; f =       5.1900000e+302
lambda =  0.037037; f =       5.1900000e+302
lambda =  0.012346; f =       5.1900000e+302
```

```
lambda =  0.0041152; f =      5.1900000e+302
lambda =  0.0013717; f =      5.1900000e+302
lambda = 0.00045725; f =       5.1900000e+302
lambda = 0.00015242; f =       5.1900000e+302
lambda = 5.0805e-05; f =      5.1900000e+302
lambda = 1.6935e-05; f =      5.1900000e+302
lambda =  5.645e-06; f =       5.1900000e+302
lambda = 1.8817e-06; f =      5.1900000e+302
lambda = 6.2723e-07; f =      5.1900000e+302
lambda = 2.0908e-07; f =      5.1900000e+302
lambda = 6.9692e-08; f =      5.1900000e+302
lambda = 2.3231e-08; f =      5.1900000e+302
lambda = 7.7435e-09; f =      5.1900000e+302
lambda = 2.5812e-09; f =      5.1900000e+302
lambda = -6.2723e-07; f =       8.8260894e+13
lambda = -2.0908e-07; f =       8.8260859e+13
lambda = -6.9692e-08; f =       8.8260848e+13
lambda = -2.3231e-08; f =       8.8260844e+13
lambda = -7.7435e-09; f =       8.8260842e+13
lambda = -2.5812e-09; f =       8.8260842e+13
Norm of dx 5.5299e+09
=====================================
 (1) New value of the obj. func. on iteration 0: 988776681264.314331055
 (2) Old value: 988776681264.314331055
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 3.0000
 (5) Current time of day: Thu Nov  2 09:26:51 2017


Convergence (improvement < crit 1.0000e-05) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement:     1.667002216, Norm of gradient:     577.408385111
lambda =        1; f =     1.0000000e+300
lambda =    0.33333; f =      1.0000000e+300
lambda =    0.11111; f =      1.0000000e+300
lambda =   0.037037; f =       1.0000000e+300
lambda =   0.012346; f =       1.0000000e+300
lambda =  0.0041152; f =       1.0000000e+300
lambda =  0.0013717; f =       1.0000000e+300
lambda = 0.00045725; f =        1.0000000e+300
lambda = 0.00015242; f =        1.0000000e+300
lambda = 5.0805e-05; f =       1.0000000e+300
lambda = 1.6935e-05; f =       1.0000000e+300
lambda =  5.645e-06; f =       9.8877668e+11
lambda = 1.8817e-06; f =       9.8877668e+11
lambda = 6.2723e-07; f =       9.8877668e+11
lambda = 2.0908e-07; f =       9.8877668e+11
lambda = 6.9692e-08; f =       9.8877668e+11
lambda = 2.3231e-08; f =       9.8877668e+11
lambda = 7.7435e-09; f =       9.8877668e+11
lambda = 2.5812e-09; f =       9.8877668e+11
lambda = -6.2723e-07; f =        9.8877668e+11
lambda = -2.0908e-07; f =        9.8877668e+11
lambda = -6.9692e-08; f =        9.8877668e+11
lambda = -2.3231e-08; f =        9.8877668e+11
lambda = -7.7435e-09; f =        9.8877668e+11
lambda = -2.5812e-09; f =        9.8877668e+11
Norm of dx  0.0057741
=====================================
 (1) New value of the obj. func. on iteration 0: 988776681264.314331055
 (2) Old value: 988776681264.314331055
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 0.0000
 (5) Current time of day: Thu Nov  2 09:26:51 2017


Convergence (improvement < crit 1.0000e-05) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 1528971487989405696655360.000000000, Norm of gradient: 552986706529082.000000000
```

```
lambda =        1; f =     5.1900000e+302
lambda =   0.33333; f =       5.1900000e+302
lambda =   0.11111; f =       5.1900000e+302
lambda =  0.037037; f =        5.1900000e+302
lambda =  0.012346; f =        5.1900000e+302
lambda =  0.0041152; f =        5.1900000e+302
lambda =  0.0013717; f =        5.1900000e+302
lambda = 0.00045725; f =         5.1900000e+302
lambda = 0.00015242; f =         5.1900000e+302
lambda = 5.0805e-05; f =        5.1900000e+302
lambda = 1.6935e-05; f =        5.1900000e+302
lambda =  5.645e-06; f =         5.1900000e+302
lambda = 1.8817e-06; f =        5.1900000e+302
lambda = 6.2723e-07; f =        5.1900000e+302
lambda = 2.0908e-07; f =        5.1900000e+302
lambda = 6.9692e-08; f =        5.1900000e+302
lambda = 2.3231e-08; f =        5.1900000e+302
lambda = 7.7435e-09; f =        5.1900000e+302
lambda = 2.5812e-09; f =        5.1900000e+302
lambda = -6.2723e-07; f =        8.8260894e+13
lambda = -2.0908e-07; f =        8.8260859e+13
lambda = -6.9692e-08; f =        8.8260848e+13
lambda = -2.3231e-08; f =        8.8260844e+13
lambda = -7.7435e-09; f =        8.8260842e+13
lambda = -2.5812e-09; f =        8.8260842e+13
Norm of dx 5.5299e+09
======================================
 (1) New value of the obj. func. on iteration 0: 988776681264.314331055
 (2) Old value: 988776681264.314331055
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 3.0000
 (5) Current time of day: Thu Nov  2 09:26:55 2017


Convergence (improvement < crit 1.0000e-05) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 15289714879894056966655360.000000000, Norm of gradient: 552986706529082.000000000
lambda =        1; f =     5.1900000e+302
lambda =   0.33333; f =       5.1900000e+302
lambda =   0.11111; f =       5.1900000e+302
lambda =  0.037037; f =        5.1900000e+302
lambda =  0.012346; f =        5.1900000e+302
lambda =  0.0041152; f =        5.1900000e+302
lambda =  0.0013717; f =        5.1900000e+302
lambda = 0.00045725; f =         5.1900000e+302
lambda = 0.00015242; f =         5.1900000e+302
lambda = 5.0805e-05; f =        5.1900000e+302
lambda = 1.6935e-05; f =        5.1900000e+302
lambda =  5.645e-06; f =         5.1900000e+302
lambda = 1.8817e-06; f =        5.1900000e+302
lambda = 6.2723e-07; f =        5.1900000e+302
lambda = 2.0908e-07; f =        5.1900000e+302
lambda = 6.9692e-08; f =        5.1900000e+302
lambda = 2.3231e-08; f =        5.1900000e+302
lambda = 7.7435e-09; f =        5.1900000e+302
lambda = 2.5812e-09; f =        5.1900000e+302
lambda = -6.2723e-07; f =        8.8260894e+13
lambda = -2.0908e-07; f =        8.8260859e+13
lambda = -6.9692e-08; f =        8.8260848e+13
lambda = -2.3231e-08; f =        8.8260844e+13
lambda = -7.7435e-09; f =        8.8260842e+13
lambda = -2.5812e-09; f =        8.8260842e+13
Norm of dx 5.5299e+09
======================================
 (1) New value of the obj. func. on iteration 0: 988776681264.314331055
 (2) Old value: 988776681264.314331055
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 3.0000
 (5) Current time of day: Thu Nov  2 09:26:59 2017
```

Convergence (improvement < crit 1.0000e-06) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 1.667002216, Norm of gradient: 577.408385111
lambda =   1; f =   1.0000000e+300
lambda =   0.33333; f =   1.0000000e+300
lambda =   0.11111; f =   1.0000000e+300
lambda =   0.037037; f =   1.0000000e+300
lambda =   0.012346; f =   1.0000000e+300
lambda = 0.0041152; f =   1.0000000e+300
lambda = 0.0013717; f =   1.0000000e+300
lambda = 0.00045725; f =   1.0000000e+300
lambda = 0.00015242; f =   1.0000000e+300
lambda = 5.0805e-05; f =   1.0000000e+300
lambda = 1.6935e-05; f =   1.0000000e+300
lambda = 5.645e-06; f =   9.8877668e+11
lambda = 1.8817e-06; f =   9.8877668e+11
lambda = 6.2723e-07; f =   9.8877668e+11
lambda = 2.0908e-07; f =   9.8877668e+11
lambda = 6.9692e-08; f =   9.8877668e+11
lambda = 2.3231e-08; f =   9.8877668e+11
lambda = 7.7435e-09; f =   9.8877668e+11
lambda = 2.5812e-09; f =   9.8877668e+11
lambda = -6.2723e-07; f =   9.8877668e+11
lambda = -2.0908e-07; f =   9.8877668e+11
lambda = -6.9692e-08; f =   9.8877668e+11
lambda = -2.3231e-08; f =   9.8877668e+11
lambda = -7.7435e-09; f =   9.8877668e+11
lambda = -2.5812e-09; f =   9.8877668e+11
Norm of dx 0.0057741
=====================================
 (1) New value of the obj. func. on iteration 0: 988776681264.314331055
 (2) Old value: 988776681264.314331055
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 0.0000
 (5) Current time of day: Thu Nov 2 09:26:59 2017

Convergence (improvement < crit 1.0000e-06) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 1528971487989405696655360.000000000, Norm of gradient: 552986706529082.000000000
lambda =   1; f =   5.1900000e+302
lambda =   0.33333; f =   5.1900000e+302
lambda =   0.11111; f =   5.1900000e+302
lambda =   0.037037; f =   5.1900000e+302
lambda =   0.012346; f =   5.1900000e+302
lambda = 0.0041152; f =   5.1900000e+302
lambda = 0.0013717; f =   5.1900000e+302
lambda = 0.00045725; f =   5.1900000e+302
lambda = 0.00015242; f =   5.1900000e+302
lambda = 5.0805e-05; f =   5.1900000e+302
lambda = 1.6935e-05; f =   5.1900000e+302
lambda = 5.645e-06; f =   5.1900000e+302
lambda = 1.8817e-06; f =   5.1900000e+302
lambda = 6.2723e-07; f =   5.1900000e+302
lambda = 2.0908e-07; f =   5.1900000e+302
lambda = 6.9692e-08; f =   5.1900000e+302
lambda = 2.3231e-08; f =   5.1900000e+302
lambda = 7.7435e-09; f =   5.1900000e+302
lambda = 2.5812e-09; f =   5.1900000e+302
lambda = -6.2723e-07; f =   8.8260894e+13
lambda = -2.0908e-07; f =   8.8260859e+13
lambda = -6.9692e-08; f =   8.8260848e+13
lambda = -2.3231e-08; f =   8.8260844e+13
lambda = -7.7435e-09; f =   8.8260842e+13
lambda = -2.5812e-09; f =   8.8260842e+13
Norm of dx 5.5299e+09
=====================================
 (1) New value of the obj. func. on iteration 0: 988776681264.314331055

(2) Old value: 988776681264.314331055
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 3.0000
 (5) Current time of day: Thu Nov 2 09:27:03 2017

Convergence (improvement < crit 1.0000e-06) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 15289714879894405696655360.000000000, Norm of gradient: 552986706529082.000000000
lambda =   1; f =   5.1900000e+302
lambda =   0.33333; f =   5.1900000e+302
lambda =   0.11111; f =   5.1900000e+302
lambda = 0.037037; f =   5.1900000e+302
lambda = 0.012346; f =   5.1900000e+302
lambda = 0.0041152; f =   5.1900000e+302
lambda = 0.0013717; f =   5.1900000e+302
lambda = 0.00045725; f =   5.1900000e+302
lambda = 0.00015242; f =   5.1900000e+302
lambda = 5.0805e-05; f =   5.1900000e+302
lambda = 1.6935e-05; f =   5.1900000e+302
lambda = 5.645e-06; f =   5.1900000e+302
lambda = 1.8817e-06; f =   5.1900000e+302
lambda = 6.2723e-07; f =   5.1900000e+302
lambda = 2.0908e-07; f =   5.1900000e+302
lambda = 6.9692e-08; f =   5.1900000e+302
lambda = 2.3231e-08; f =   5.1900000e+302
lambda = 7.7435e-09; f =   5.1900000e+302
lambda = 2.5812e-09; f =   5.1900000e+302
lambda = -6.2723e-07; f =   8.8260894e+13
lambda = -2.0908e-07; f =   8.8260859e+13
lambda = -6.9692e-08; f =   8.8260848e+13
lambda = -2.3231e-08; f =   8.8260844e+13
lambda = -7.7435e-09; f =   8.8260842e+13
lambda = -2.5812e-09; f =   8.8260842e+13
Norm of dx 5.5299e+09
=====================================
 (1) New value of the obj. func. on iteration 0: 988776681264.314331055
 (2) Old value: 988776681264.314331055
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 3.0000
 (5) Current time of day: Thu Nov 2 09:27:07 2017

Convergence (improvement < crit 1.0000e-03) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 1.667002216, Norm of gradient: 577.408385111
lambda =   1; f =   1.0000000e+300
lambda =   0.33333; f =   1.0000000e+300
lambda =   0.11111; f =   1.0000000e+300
lambda = 0.037037; f =   1.0000000e+300
lambda = 0.012346; f =   1.0000000e+300
lambda = 0.0041152; f =   1.0000000e+300
lambda = 0.0013717; f =   1.0000000e+300
lambda = 0.00045725; f =   1.0000000e+300
lambda = 0.00015242; f =   1.0000000e+300
lambda = 5.0805e-05; f =   1.0000000e+300
lambda = 1.6935e-05; f =   1.0000000e+300
lambda = 5.645e-06; f =   9.8877668e+11
lambda = 1.8817e-06; f =   9.8877668e+11
lambda = 6.2723e-07; f =   9.8877668e+11
lambda = 2.0908e-07; f =   9.8877668e+11
lambda = 6.9692e-08; f =   9.8877668e+11
lambda = 2.3231e-08; f =   9.8877668e+11
lambda = 7.7435e-09; f =   9.8877668e+11
lambda = 2.5812e-09; f =   9.8877668e+11
lambda = -6.2723e-07; f =   9.8877668e+11
lambda = -2.0908e-07; f =   9.8877668e+11
lambda = -6.9692e-08; f =   9.8877668e+11
lambda = -2.3231e-08; f =   9.8877668e+11

```
lambda = -7.7435e-09; f =     9.8877668e+11
lambda = -2.5812e-09; f =     9.8877668e+11
Norm of dx  0.0057741
=======================================
 (1) New value of the obj. func. on iteration 0: 988776681264.314331055
 (2) Old value: 988776681264.314331055
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 0.0000
 (5) Current time of day: Thu Nov  2 09:27:07 2017


Convergence (improvement < crit 1.0000e-03) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 152897148798940569665360.000000000, Norm of gradient: 552986706529082.000000000
lambda =        1; f =     5.1900000e+302
lambda =   0.33333; f =     5.1900000e+302
lambda =   0.11111; f =     5.1900000e+302
lambda =  0.037037; f =     5.1900000e+302
lambda =  0.012346; f =     5.1900000e+302
lambda =  0.0041152; f =     5.1900000e+302
lambda =  0.0013717; f =     5.1900000e+302
lambda = 0.00045725; f =      5.1900000e+302
lambda = 0.00015242; f =      5.1900000e+302
lambda = 5.0805e-05; f =     5.1900000e+302
lambda = 1.6935e-05; f =     5.1900000e+302
lambda =  5.645e-06; f =      5.1900000e+302
lambda = 1.8817e-06; f =     5.1900000e+302
lambda = 6.2723e-07; f =     5.1900000e+302
lambda = 2.0908e-07; f =     5.1900000e+302
lambda = 6.9692e-08; f =     5.1900000e+302
lambda = 2.3231e-08; f =     5.1900000e+302
lambda = 7.7435e-09; f =     5.1900000e+302
lambda = 2.5812e-09; f =     5.1900000e+302
lambda = -6.2723e-07; f =     8.8260894e+13
lambda = -2.0908e-07; f =     8.8260859e+13
lambda = -6.9692e-08; f =     8.8260848e+13
lambda = -2.3231e-08; f =     8.8260844e+13
lambda = -7.7435e-09; f =     8.8260842e+13
lambda = -2.5812e-09; f =     8.8260842e+13
Norm of dx 5.5299e+09
=======================================
 (1) New value of the obj. func. on iteration 0: 988776681264.314331055
 (2) Old value: 988776681264.314331055
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 3.0000
 (5) Current time of day: Thu Nov  2 09:27:11 2017


Convergence (improvement < crit 1.0000e-03) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 152897148798940569665360.000000000, Norm of gradient: 552986706529082.000000000
lambda =        1; f =     5.1900000e+302
lambda =   0.33333; f =     5.1900000e+302
lambda =   0.11111; f =     5.1900000e+302
lambda =  0.037037; f =     5.1900000e+302
lambda =  0.012346; f =     5.1900000e+302
lambda =  0.0041152; f =     5.1900000e+302
lambda =  0.0013717; f =     5.1900000e+302
lambda = 0.00045725; f =      5.1900000e+302
lambda = 0.00015242; f =      5.1900000e+302
lambda = 5.0805e-05; f =     5.1900000e+302
lambda = 1.6935e-05; f =     5.1900000e+302
lambda =  5.645e-06; f =      5.1900000e+302
lambda = 1.8817e-06; f =     5.1900000e+302
lambda = 6.2723e-07; f =     5.1900000e+302
lambda = 2.0908e-07; f =     5.1900000e+302
lambda = 6.9692e-08; f =     5.1900000e+302
lambda = 2.3231e-08; f =     5.1900000e+302
lambda = 7.7435e-09; f =     5.1900000e+302
```

lambda = 2.5812e-09; f =   5.1900000e+302
lambda = -6.2723e-07; f =   8.8260894e+13
lambda = -2.0908e-07; f =   8.8260859e+13
lambda = -6.9692e-08; f =   8.8260848e+13
lambda = -2.3231e-08; f =   8.8260844e+13
lambda = -7.7435e-09; f =   8.8260842e+13
lambda = -2.5812e-09; f =   8.8260842e+13
Norm of dx 5.5299e+09
=======================================
 (1) New value of the obj. func. on iteration 0: 988776681264.314331055
 (2) Old value: 988776681264.314331055
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 3.0000
 (5) Current time of day: Thu Nov 2 09:27:15 2017

Convergence (improvement < crit 1.0000e-04) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 1.667002216, Norm of gradient: 577.408385111
lambda =   1; f =   1.0000000e+300
lambda =   0.33333; f =   1.0000000e+300
lambda =   0.11111; f =   1.0000000e+300
lambda =   0.037037; f =   1.0000000e+300
lambda =   0.012346; f =   1.0000000e+300
lambda = 0.0041152; f =   1.0000000e+300
lambda = 0.0013717; f =   1.0000000e+300
lambda = 0.00045725; f =   1.0000000e+300
lambda = 0.00015242; f =   1.0000000e+300
lambda = 5.0805e-05; f =   1.0000000e+300
lambda = 1.6935e-05; f =   1.0000000e+300
lambda = 5.645e-06; f =   9.8877668e+11
lambda = 1.8817e-06; f =   9.8877668e+11
lambda = 6.2723e-07; f =   9.8877668e+11
lambda = 2.0908e-07; f =   9.8877668e+11
lambda = 6.9692e-08; f =   9.8877668e+11
lambda = 2.3231e-08; f =   9.8877668e+11
lambda = 7.7435e-09; f =   9.8877668e+11
lambda = 2.5812e-09; f =   9.8877668e+11
lambda = -6.2723e-07; f =   9.8877668e+11
lambda = -2.0908e-07; f =   9.8877668e+11
lambda = -6.9692e-08; f =   9.8877668e+11
lambda = -2.3231e-08; f =   9.8877668e+11
lambda = -7.7435e-09; f =   9.8877668e+11
lambda = -2.5812e-09; f =   9.8877668e+11
Norm of dx 0.0057741
=======================================
 (1) New value of the obj. func. on iteration 0: 988776681264.314331055
 (2) Old value: 988776681264.314331055
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 0.0000
 (5) Current time of day: Thu Nov 2 09:27:15 2017

Convergence (improvement < crit 1.0000e-04) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 1528971487989405696655360.000000000, Norm of gradient: 552986706529082.000000000
lambda =   1; f =   5.1900000e+302
lambda =   0.33333; f =   5.1900000e+302
lambda =   0.11111; f =   5.1900000e+302
lambda =   0.037037; f =   5.1900000e+302
lambda =   0.012346; f =   5.1900000e+302
lambda = 0.0041152; f =   5.1900000e+302
lambda = 0.0013717; f =   5.1900000e+302
lambda = 0.00045725; f =   5.1900000e+302
lambda = 0.00015242; f =   5.1900000e+302
lambda = 5.0805e-05; f =   5.1900000e+302
lambda = 1.6935e-05; f =   5.1900000e+302
lambda = 5.645e-06; f =   5.1900000e+302
lambda = 1.8817e-06; f =   5.1900000e+302

```
lambda = 6.2723e-07; f =    5.1900000e+302
lambda = 2.0908e-07; f =    5.1900000e+302
lambda = 6.9692e-08; f =    5.1900000e+302
lambda = 2.3231e-08; f =    5.1900000e+302
lambda = 7.7435e-09; f =    5.1900000e+302
lambda = 2.5812e-09; f =    5.1900000e+302
lambda = -6.2723e-07; f =    8.8260894e+13
lambda = -2.0908e-07; f =    8.8260859e+13
lambda = -6.9692e-08; f =    8.8260848e+13
lambda = -2.3231e-08; f =    8.8260844e+13
lambda = -7.7435e-09; f =    8.8260842e+13
lambda = -2.5812e-09; f =    8.8260842e+13
Norm of dx 5.5299e+09
=======================================
 (1) New value of the obj. func. on iteration 0: 988776681264.314331055
 (2) Old value: 988776681264.314331055
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 3.0000
 (5) Current time of day: Thu Nov  2 09:27:19 2017


Convergence (improvement < crit 1.0000e-04) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 1528971487989405696655360.000000000, Norm of gradient: 552986706529082.000000000
lambda =       1; f =    5.1900000e+302
lambda =   0.33333; f =    5.1900000e+302
lambda =   0.11111; f =    5.1900000e+302
lambda =  0.037037; f =    5.1900000e+302
lambda =  0.012346; f =    5.1900000e+302
lambda = 0.0041152; f =    5.1900000e+302
lambda = 0.0013717; f =    5.1900000e+302
lambda = 0.00045725; f =    5.1900000e+302
lambda = 0.00015242; f =    5.1900000e+302
lambda = 5.0805e-05; f =    5.1900000e+302
lambda = 1.6935e-05; f =    5.1900000e+302
lambda =  5.645e-06; f =    5.1900000e+302
lambda = 1.8817e-06; f =    5.1900000e+302
lambda = 6.2723e-07; f =    5.1900000e+302
lambda = 2.0908e-07; f =    5.1900000e+302
lambda = 6.9692e-08; f =    5.1900000e+302
lambda = 2.3231e-08; f =    5.1900000e+302
lambda = 7.7435e-09; f =    5.1900000e+302
lambda = 2.5812e-09; f =    5.1900000e+302
lambda = -6.2723e-07; f =    8.8260894e+13
lambda = -2.0908e-07; f =    8.8260859e+13
lambda = -6.9692e-08; f =    8.8260848e+13
lambda = -2.3231e-08; f =    8.8260844e+13
lambda = -7.7435e-09; f =    8.8260842e+13
lambda = -2.5812e-09; f =    8.8260842e+13
Norm of dx 5.5299e+09
=======================================
 (1) New value of the obj. func. on iteration 0: 988776681264.314331055
 (2) Old value: 988776681264.314331055
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 2.0000
 (5) Current time of day: Thu Nov  2 09:27:22 2017


Convergence (improvement < crit 1.0000e-05) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement:     1.667002216, Norm of gradient:     577.408385111
lambda =       1; f =    1.0000000e+300
lambda =   0.33333; f =    1.0000000e+300
lambda =   0.11111; f =    1.0000000e+300
lambda =  0.037037; f =    1.0000000e+300
lambda =  0.012346; f =    1.0000000e+300
lambda = 0.0041152; f =    1.0000000e+300
lambda = 0.0013717; f =    1.0000000e+300
lambda = 0.00045725; f =    1.0000000e+300
```

```
lambda = 0.00015242; f =      1.0000000e+300
lambda = 5.0805e-05; f =      1.0000000e+300
lambda = 1.6935e-05; f =      1.0000000e+300
lambda =  5.645e-06; f =      9.8877668e+11
lambda = 1.8817e-06; f =      9.8877668e+11
lambda = 6.2723e-07; f =      9.8877668e+11
lambda = 2.0908e-07; f =      9.8877668e+11
lambda = 6.9692e-08; f =      9.8877668e+11
lambda = 2.3231e-08; f =      9.8877668e+11
lambda = 7.7435e-09; f =      9.8877668e+11
lambda = 2.5812e-09; f =      9.8877668e+11
lambda = -6.2723e-07; f =      9.8877668e+11
lambda = -2.0908e-07; f =      9.8877668e+11
lambda = -6.9692e-08; f =      9.8877668e+11
lambda = -2.3231e-08; f =      9.8877668e+11
lambda = -7.7435e-09; f =      9.8877668e+11
lambda = -2.5812e-09; f =      9.8877668e+11
Norm of dx  0.0057741
======================================
 (1) New value of the obj. func. on iteration 0: 988776681264.314331055
 (2) Old value: 988776681264.314331055
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 1.0000
 (5) Current time of day: Thu Nov  2 09:27:23 2017


Convergence (improvement < crit 1.0000e-05) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 1528971487989405696655360.000000000, Norm of gradient: 552986706529082.000000000
lambda =        1; f =      5.1900000e+302
lambda =   0.33333; f =      5.1900000e+302
lambda =   0.11111; f =      5.1900000e+302
lambda =  0.037037; f =      5.1900000e+302
lambda =  0.012346; f =      5.1900000e+302
lambda =  0.0041152; f =      5.1900000e+302
lambda =  0.0013717; f =      5.1900000e+302
lambda = 0.00045725; f =      5.1900000e+302
lambda = 0.00015242; f =      5.1900000e+302
lambda = 5.0805e-05; f =      5.1900000e+302
lambda = 1.6935e-05; f =      5.1900000e+302
lambda =  5.645e-06; f =      5.1900000e+302
lambda = 1.8817e-06; f =      5.1900000e+302
lambda = 6.2723e-07; f =      5.1900000e+302
lambda = 2.0908e-07; f =      5.1900000e+302
lambda = 6.9692e-08; f =      5.1900000e+302
lambda = 2.3231e-08; f =      5.1900000e+302
lambda = 7.7435e-09; f =      5.1900000e+302
lambda = 2.5812e-09; f =      5.1900000e+302
lambda = -6.2723e-07; f =      8.8260894e+13
lambda = -2.0908e-07; f =      8.8260859e+13
lambda = -6.9692e-08; f =      8.8260848e+13
lambda = -2.3231e-08; f =      8.8260844e+13
lambda = -7.7435e-09; f =      8.8260842e+13
lambda = -2.5812e-09; f =      8.8260842e+13
Norm of dx 5.5299e+09
======================================
 (1) New value of the obj. func. on iteration 0: 988776681264.314331055
 (2) Old value: 988776681264.314331055
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 2.0000
 (5) Current time of day: Thu Nov  2 09:27:26 2017


Convergence (improvement < crit 1.0000e-05) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 1528971487989405696655360.000000000, Norm of gradient: 552986706529082.000000000
lambda =        1; f =      5.1900000e+302
lambda =   0.33333; f =      5.1900000e+302
lambda =   0.11111; f =      5.1900000e+302
```

```
lambda =  0.037037; f =     5.1900000e+302
lambda =  0.012346; f =     5.1900000e+302
lambda = 0.0041152; f =     5.1900000e+302
lambda = 0.0013717; f =     5.1900000e+302
lambda = 0.00045725; f =     5.1900000e+302
lambda = 0.00015242; f =     5.1900000e+302
lambda = 5.0805e-05; f =     5.1900000e+302
lambda = 1.6935e-05; f =     5.1900000e+302
lambda =  5.645e-06; f =     5.1900000e+302
lambda = 1.8817e-06; f =     5.1900000e+302
lambda = 6.2723e-07; f =     5.1900000e+302
lambda = 2.0908e-07; f =     5.1900000e+302
lambda = 6.9692e-08; f =     5.1900000e+302
lambda = 2.3231e-08; f =     5.1900000e+302
lambda = 7.7435e-09; f =     5.1900000e+302
lambda = 2.5812e-09; f =     5.1900000e+302
lambda = -6.2723e-07; f =     8.8260894e+13
lambda = -2.0908e-07; f =     8.8260859e+13
lambda = -6.9692e-08; f =     8.8260848e+13
lambda = -2.3231e-08; f =     8.8260844e+13
lambda = -7.7435e-09; f =     8.8260842e+13
lambda = -2.5812e-09; f =     8.8260842e+13
Norm of dx 5.5299e+09
======================================
 (1) New value of the obj. func. on iteration 0: 988776681264.314331055
 (2) Old value: 988776681264.314331055
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 2.0000
 (5) Current time of day: Thu Nov  2 09:27:30 2017


Convergence (improvement < crit 1.0000e-06) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement:     1.667002216, Norm of gradient:     577.408385111
lambda =        1; f =     1.0000000e+300
lambda =  0.33333; f =     1.0000000e+300
lambda =  0.11111; f =     1.0000000e+300
lambda =  0.037037; f =     1.0000000e+300
lambda =  0.012346; f =     1.0000000e+300
lambda = 0.0041152; f =     1.0000000e+300
lambda = 0.0013717; f =     1.0000000e+300
lambda = 0.00045725; f =     1.0000000e+300
lambda = 0.00015242; f =     1.0000000e+300
lambda = 5.0805e-05; f =     1.0000000e+300
lambda = 1.6935e-05; f =     1.0000000e+300
lambda =  5.645e-06; f =     9.8877668e+11
lambda = 1.8817e-06; f =     9.8877668e+11
lambda = 6.2723e-07; f =     9.8877668e+11
lambda = 2.0908e-07; f =     9.8877668e+11
lambda = 6.9692e-08; f =     9.8877668e+11
lambda = 2.3231e-08; f =     9.8877668e+11
lambda = 7.7435e-09; f =     9.8877668e+11
lambda = 2.5812e-09; f =     9.8877668e+11
lambda = -6.2723e-07; f =     9.8877668e+11
lambda = -2.0908e-07; f =     9.8877668e+11
lambda = -6.9692e-08; f =     9.8877668e+11
lambda = -2.3231e-08; f =     9.8877668e+11
lambda = -7.7435e-09; f =     9.8877668e+11
lambda = -2.5812e-09; f =     9.8877668e+11
Norm of dx  0.0057741
======================================
 (1) New value of the obj. func. on iteration 0: 988776681264.314331055
 (2) Old value: 988776681264.314331055
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 0.0000
 (5) Current time of day: Thu Nov  2 09:27:30 2017


Convergence (improvement < crit 1.0000e-06) with return code 6.
```

Warning: Smallest step still improving too slow, reversed gradient.
Predicted improvement: 1528971487989405696655360.000000000, Norm of gradient: 552986706529082.000000000
lambda =   1; f =   5.1900000e+302
lambda =   0.33333; f =   5.1900000e+302
lambda =   0.11111; f =   5.1900000e+302
lambda =   0.037037; f =   5.1900000e+302
lambda =   0.012346; f =   5.1900000e+302
lambda = 0.0041152; f =   5.1900000e+302
lambda = 0.0013717; f =   5.1900000e+302
lambda = 0.00045725; f =   5.1900000e+302
lambda = 0.00015242; f =   5.1900000e+302
lambda = 5.0805e-05; f =   5.1900000e+302
lambda = 1.6935e-05; f =   5.1900000e+302
lambda = 5.645e-06; f =   5.1900000e+302
lambda = 1.8817e-06; f =   5.1900000e+302
lambda = 6.2723e-07; f =   5.1900000e+302
lambda = 2.0908e-07; f =   5.1900000e+302
lambda = 6.9692e-08; f =   5.1900000e+302
lambda = 2.3231e-08; f =   5.1900000e+302
lambda = 7.7435e-09; f =   5.1900000e+302
lambda = 2.5812e-09; f =   5.1900000e+302
lambda = -6.2723e-07; f =   8.8260894e+13
lambda = -2.0908e-07; f =   8.8260859e+13
lambda = -6.9692e-08; f =   8.8260848e+13
lambda = -2.3231e-08; f =   8.8260844e+13
lambda = -7.7435e-09; f =   8.8260842e+13
lambda = -2.5812e-09; f =   8.8260842e+13
Norm of dx 5.5299e+09
==
 (1) New value of the obj. func. on iteration 0: 988776681264.314331055
 (2) Old value: 988776681264.314331055
 (3) Downhill improvement: 0.000000000
 (4) Seconds to complete one iteration: 2.0000
 (5) Current time of day: Thu Nov 2 09:27:34 2017

Convergence (improvement < crit 1.0000e-06) with return code 6.

Warning: Smallest step still improving too slow, reversed gradient.
MS-SBVAR Simulation
Calibrating jumping parameters - 30000 draws
Beginning adaptive burn in -- 30000 iterations.
1000 iterations completed out of 30000 - elapsed time: 15 seconds
col: 6 state: 1 (502 0.502000 1.000000 1.523347)
col: 5 state: 1 (508 0.508000 1.000000 1.550070)
col: 4 state: 1 (652 0.652000 1.000000 2.454514)
col: 3 state: 1 (510 0.510000 1.000000 1.559116)
col: 2 state: 1 (509 0.509000 1.000000 1.554584)
col: 1 state: 1 (260 0.260000 1.000000 0.779335)

2000 iterations completed out of 30000 - elapsed time: 30 seconds
col: 6 state: 1 (1010 0.508000 1.523347 2.361294)
col: 5 state: 1 (825 0.317000 1.550070 1.275035)
col: 4 state: 1 (1002 0.350000 2.454514 2.454514)
col: 3 state: 1 (998 0.488000 1.559116 2.281438)
col: 2 state: 1 (854 0.345000 1.554584 1.277292)
col: 1 state: 1 (607 0.347000 0.779335 0.772997)

3000 iterations completed out of 30000 - elapsed time: 45 seconds
col: 6 state: 1 (1533 0.523000 2.361294 3.824497)
col: 5 state: 1 (1251 0.426000 1.275035 -)
col: 4 state: 1 (1349 0.347000 2.454514 2.454514)
col: 3 state: 1 (1467 0.469000 2.281438 3.163304)
col: 2 state: 1 (1284 0.430000 1.277292 -)
col: 1 state: 1 (973 0.366000 0.772997 0.776166)

4000 iterations completed out of 30000 - elapsed time: 60 seconds
col: 6 state: 1 (2023 0.490000 3.824497 5.628433)
col: 5 state: 1 (1623 0.399000 1.275035 1.550070)
col: 4 state: 1 (1688 0.339000 2.454514 -)
col: 3 state: 1 (1957 0.490000 3.163304 4.655368)

col: 2 state: 1 (1697 0.421500 1.277292 1.554584)
col: 1 state: 1 (1368 0.395000 0.776166 -)

5000 iterations completed out of 30000 - elapsed time: 75 seconds
col: 6 state: 1 (2521 0.498000 5.628433 8.475664)
col: 5 state: 1 (1960 0.337000 1.550070 -)
col: 4 state: 1 (2043 0.347000 2.454514 2.454514)
col: 3 state: 1 (2459 0.502000 4.655368 7.091739)
col: 2 state: 1 (2033 0.336000 1.554584 -)
col: 1 state: 1 (1748 0.387500 0.776166 0.779335)

6000 iterations completed out of 30000 - elapsed time: 90 seconds
col: 6 state: 1 (3029 0.508000 8.475664 13.137876)
col: 5 state: 1 (2291 0.334000 1.550070 1.412553)
col: 4 state: 1 (2412 0.369000 2.454514 -)
col: 3 state: 1 (2963 0.504000 7.091739 10.865868)
col: 2 state: 1 (2359 0.331000 1.554584 1.415938)
col: 1 state: 1 (2125 0.377000 0.779335 -)

7000 iterations completed out of 30000 - elapsed time: 104 seconds
col: 6 state: 1 (3524 0.495000 13.137876 19.613882)
col: 5 state: 1 (2658 0.367000 1.412553 -)
col: 4 state: 1 (2753 0.355000 2.454514 2.454514)
col: 3 state: 1 (3478 0.515000 10.865868 17.190218)
col: 2 state: 1 (2735 0.376000 1.415938 -)
col: 1 state: 1 (2522 0.387000 0.779335 0.861832)

8000 iterations completed out of 30000 - elapsed time: 119 seconds
col: 6 state: 1 (4003 0.479000 19.613882 27.974943)
col: 5 state: 1 (3012 0.360500 1.412553 -)
col: 4 state: 1 (3063 0.310000 2.454514 -)
col: 3 state: 1 (3983 0.505000 17.190218 26.415039)
col: 2 state: 1 (3130 0.385500 1.415938 -)
col: 1 state: 1 (2871 0.349000 0.861832 -)

9000 iterations completed out of 30000 - elapsed time: 134 seconds
col: 6 state: 1 (4494 0.491000 27.974943 41.288139)
col: 5 state: 1 (3366 0.358333 1.412553 -)
col: 4 state: 1 (3429 0.338000 2.454514 -)
col: 3 state: 1 (4480 0.497000 26.415039 39.663144)
col: 2 state: 1 (3524 0.388333 1.415938 -)
col: 1 state: 1 (3203 0.340500 0.861832 0.820584)

10000 iterations completed out of 30000 - elapsed time: 149 seconds
col: 6 state: 1 (4976 0.482000 41.288139 59.392353)
col: 5 state: 1 (3742 0.362750 1.412553 1.550070)
col: 4 state: 1 (3766 0.337667 2.454514 -)
col: 3 state: 1 (4967 0.487000 39.663144 57.873187)
col: 2 state: 1 (3920 0.390250 1.415938 1.554584)
col: 1 state: 1 (3566 0.363000 0.820584 -)

11000 iterations completed out of 30000 - elapsed time: 164 seconds
col: 6 state: 1 (5498 0.522000 59.392353 95.912300)
col: 5 state: 1 (4079 0.337000 1.550070 -)
col: 4 state: 1 (4122 0.342250 2.454514 2.454514)
col: 3 state: 1 (5480 0.513000 57.873187 91.023857)
col: 2 state: 1 (4264 0.344000 1.554584 -)
col: 1 state: 1 (3926 0.361500 0.820584 -)

12000 iterations completed out of 30000 - elapsed time: 179 seconds
col: 6 state: 1 (6001 0.503000 95.912300 146.530802)
col: 5 state: 1 (4406 0.332000 1.550070 -)
col: 4 state: 1 (4483 0.361000 2.454514 -)
col: 3 state: 1 (5979 0.499000 91.023857 137.465253)
col: 2 state: 1 (4601 0.340500 1.554584 -)
col: 1 state: 1 (4294 0.363667 0.820584 -)

13000 iterations completed out of 30000 - elapsed time: 194 seconds
col: 6 state: 1 (6513 0.512000 146.530802 229.794195)
col: 5 state: 1 (4759 0.339000 1.550070 -)
col: 4 state: 1 (4817 0.347500 2.454514 -)

col: 3 state: 1 (6463 0.484000 137.465253 198.869996)
col: 2 state: 1 (4956 0.345333 1.554584 -)
col: 1 state: 1 (4657 0.363500 0.820584 0.861832)

14000 iterations completed out of 30000 - elapsed time: 209 seconds
col: 6 state: 1 (7017 0.504000 229.794195 352.087595)
col: 5 state: 1 (5104 0.340500 1.550070 1.481312)
col: 4 state: 1 (5160 0.346000 2.454514 -)
col: 3 state: 1 (6965 0.502000 198.869996 302.947920)
col: 2 state: 1 (5278 0.339500 1.554584 1.485261)
col: 1 state: 1 (4975 0.318000 0.861832 -)

15000 iterations completed out of 30000 - elapsed time: 224 seconds
col: 6 state: 1 (7509 0.492000 352.087595 521.135712)
col: 5 state: 1 (5435 0.331000 1.481312 -)
col: 4 state: 1 (5498 0.344000 2.454514 2.414742)
col: 3 state: 1 (7451 0.486000 302.947920 440.777359)
col: 2 state: 1 (5605 0.327000 1.485261 -)
col: 1 state: 1 (5325 0.334000 0.861832 -)

16000 iterations completed out of 30000 - elapsed time: 239 seconds
col: 6 state: 1 (8009 0.500000 521.135712 789.298169)
col: 5 state: 1 (5807 0.351500 1.481312 -)
col: 4 state: 1 (5842 0.344000 2.414742 -)
col: 3 state: 1 (7944 0.493000 440.777359 654.281190)
col: 2 state: 1 (5978 0.350000 1.485261 -)
col: 1 state: 1 (5663 0.335333 0.861832 -)

17000 iterations completed out of 30000 - elapsed time: 254 seconds
col: 6 state: 1 (8517 0.508000 789.298169 1223.467735)
col: 5 state: 1 (6156 0.350667 1.481312 -)
col: 4 state: 1 (6183 0.342500 2.414742 -)
col: 3 state: 1 (8417 0.473000 654.281190 917.477853)
col: 2 state: 1 (6332 0.351333 1.485261 -)
col: 1 state: 1 (5972 0.328750 0.861832 0.841208)

18000 iterations completed out of 30000 - elapsed time: 268 seconds
col: 6 state: 1 (8683 0.166000 1223.467735 1006.382952)
col: 5 state: 1 (6499 0.348750 1.481312 -)
col: 4 state: 1 (6508 0.336667 2.414742 -)
col: 3 state: 1 (8554 0.137000 917.477853 785.879521)
col: 2 state: 1 (6699 0.355250 1.485261 -)
col: 1 state: 1 (6302 0.330000 0.841208 -)

19000 iterations completed out of 30000 - elapsed time: 283 seconds
col: 6 state: 1 (8683 0.000000 1006.382952 -)
col: 5 state: 1 (6862 0.351600 1.481312 -)
col: 4 state: 1 (6907 0.352250 2.414742 2.434628)
col: 3 state: 1 (8556 0.002000 785.879521 -)
col: 2 state: 1 (7088 0.362000 1.485261 -)
col: 1 state: 1 (6622 0.325000 0.841208 -)

20000 iterations completed out of 30000 - elapsed time: 298 seconds
col: 6 state: 1 (8683 0.000000 1006.382952 789.298169)
col: 5 state: 1 (7190 0.347667 1.481312 -)
col: 4 state: 1 (7273 0.366000 2.434628 -)
col: 3 state: 1 (8556 0.001000 785.879521 654.281190)
col: 2 state: 1 (7485 0.367833 1.485261 -)
col: 1 state: 1 (6939 0.322333 0.841208 -)

21000 iterations completed out of 30000 - elapsed time: 313 seconds
col: 6 state: 1 (8683 0.000000 789.298169 -)
col: 5 state: 1 (7561 0.351000 1.481312 -)
col: 4 state: 1 (7626 0.359500 2.434628 -)
col: 3 state: 1 (8557 0.001000 654.281190 -)
col: 2 state: 1 (7856 0.368286 1.485261 -)
col: 1 state: 1 (7262 0.322500 0.841208 -)

22000 iterations completed out of 30000 - elapsed time: 328 seconds
col: 6 state: 1 (8683 0.000000 789.298169 157.859634)
col: 5 state: 1 (7908 0.350500 1.481312 1.550070)

col: 4 state: 1 (7961 0.351333 2.434628 -)
col: 3 state: 1 (8557 0.000500 654.281190 130.856238)
col: 2 state: 1 (8233 0.369375 1.485261 1.554584)
col: 1 state: 1 (7585 0.322600 0.841208 -)

23000 iterations completed out of 30000 - elapsed time: 344 seconds
col: 6 state: 1 (8686 0.003000 157.859634 -)
col: 5 state: 1 (8257 0.349000 1.550070 -)
col: 4 state: 1 (8311 0.351000 2.434628 -)
col: 3 state: 1 (8564 0.007000 130.856238 -)
col: 2 state: 1 (8566 0.333000 1.554584 -)
col: 1 state: 1 (7931 0.326500 0.841208 -)

24000 iterations completed out of 30000 - elapsed time: 359 seconds
col: 6 state: 1 (8686 0.001500 157.859634 31.571927)
col: 5 state: 1 (8585 0.338500 1.550070 -)
col: 4 state: 1 (8667 0.352000 2.434628 -)
col: 3 state: 1 (8564 0.003500 130.856238 26.171248)
col: 2 state: 1 (8933 0.350000 1.554584 -)
col: 1 state: 1 (8265 0.327571 0.841208 -)

25000 iterations completed out of 30000 - elapsed time: 375 seconds
col: 6 state: 1 (8690 0.004000 31.571927 -)
col: 5 state: 1 (8926 0.339333 1.550070 -)
col: 4 state: 1 (9037 0.355000 2.434628 -)
col: 3 state: 1 (8571 0.007000 26.171248 -)
col: 2 state: 1 (9299 0.355333 1.554584 -)
col: 1 state: 1 (8596 0.328000 0.841208 0.820584)

26000 iterations completed out of 30000 - elapsed time: 390 seconds
col: 6 state: 1 (8691 0.002500 31.571927 6.314385)
col: 5 state: 1 (9284 0.344000 1.550070 -)
col: 4 state: 1 (9392 0.355000 2.434628 -)
col: 3 state: 1 (8571 0.003500 26.171248 5.234250)
col: 2 state: 1 (9684 0.362750 1.554584 -)
col: 1 state: 1 (8974 0.378000 0.820584 -)

27000 iterations completed out of 30000 - elapsed time: 405 seconds
col: 6 state: 1 (8707 0.016000 6.314385 -)
col: 5 state: 1 (9604 0.339200 1.550070 -)
col: 4 state: 1 (9778 0.358875 2.434628 2.454514)
col: 3 state: 1 (8585 0.014000 5.234250 -)
col: 2 state: 1 (10032 0.359800 1.554584 -)
col: 1 state: 1 (9331 0.367500 0.820584 -)

28000 iterations completed out of 30000 - elapsed time: 421 seconds
col: 6 state: 1 (8715 0.012000 6.314385 1.498804)
col: 5 state: 1 (9960 0.342000 1.550070 -)
col: 4 state: 1 (10136 0.358000 2.454514 -)
col: 3 state: 1 (8590 0.009500 5.234250 1.180087)
col: 2 state: 1 (10407 0.362333 1.554584 -)
col: 1 state: 1 (9720 0.374667 0.820584 -)

29000 iterations completed out of 30000 - elapsed time: 436 seconds
col: 6 state: 1 (8980 0.265000 1.498804 -)
col: 5 state: 1 (10296 0.341143 1.550070 -)
col: 4 state: 1 (10495 0.358500 2.454514 -)
col: 3 state: 1 (8869 0.279000 1.180087 -)
col: 2 state: 1 (10768 0.362143 1.554584 -)
col: 1 state: 1 (10056 0.365000 0.820584 -)

30000 iterations completed out of 30000 - elapsed time: 452 seconds
col: 6 state: 1 (9258 0.271500 1.498804 1.206846)
col: 5 state: 1 (10645 0.342125 1.550070 1.515691)
col: 4 state: 1 (10856 0.359333 2.454514 -)
col: 3 state: 1 (9122 0.266000 1.180087 0.935528)
col: 2 state: 1 (11151 0.364750 1.554584 1.618213)
col: 1 state: 1 (10400 0.360800 0.820584 -)

Elapsed Time: 452 seconds
Burn-in period - 100 draws

Elapsed Time: 453 seconds
Simulating - 1000 draws
1000 * 1 iterations completed out of 1000 * 1
Elapsed Time: 469 seconds
Total Elapsed Time: 469 seconds
MS-SBVAR Marginal Data Density
Processing posterior draws
Matrix not positive definite.
Error in MS-SBVAR MEX file.

Error using mexErrCheck (line 41)
Error encountered in: ms_compute_mdd.

Error in ms_compute_mdd (line 55)
mexErrCheck('ms_compute_mdd',err);

Error in testv016 (line 129)
[options_, oo_] = ms_compute_mdd(M_, options_, oo_);

Error in dynare (line 223)
evalin('base',fname) ;