```
nonlinearmin_test(0, 0)
--------------------------------------------------------------------------------
---------
Minimizing quadratic, min at origin

x =

   1.0e-08 *

    0.0712
    0.2372


no_its =

     4


normg =

   2.4101e-08


x =

   1.0e-08 *

    0.0712
    0.2372


no_its =

     4


normg =

   2.4100e-08

--------------------------------------------------------------------------------
---------
Minimizing quadratic, min at origin

x =

   1.0e-07 *

    0.1957
    0.1957


no_its =

     4


normg =
```

```
   2.2820e-07


x =

   1.0e-07 *

    0.1961
    0.1961


no_its =

     4


normg =

   2.2874e-07

-------------------------------------------------------------------------------
---------
Minimizing quadratic, min at origin

x =

   1.0e-08 *

    0.2417
    0.0001


no_its =

     4


normg =

    0.0048


x =

   1.0e-08 *

    0.2417
    0.0001


no_its =

     4


normg =

    0.0048
```

```
--------------------------------------------------------------------------------
---------
Minimizing quadratic, min at origin

x =

   1.0e-06 *

   -0.0343
   -0.0864
   -0.1084
   -0.0985
   -0.0644


no_its =

    10


normg =

   2.1664e-06


x =

   1.0e-07 *

   -0.5768
   -0.8985
   -0.7882
   -0.7361
   -0.8634


no_its =

    10


normg =

   2.0982e-06

--------------------------------------------------------------------------------
---------
Minimizing negative definite quadratic form, has no minimum
[#Warning: The function does not seem to be convex: cannot be minimized.]#
[#> In <a
href="matlab:matlab.internal.language.introspective.errorDocCallback('nonlinearmin_
test>testQuadratics',
'/Users/simondanielsson/Documents/F/F4/optimering/project/v1.1/nonlinearmin_test.m'
, 101)" style="font-weight:bold">nonlinearmin_test>testQuadratics</a> (<a
href="matlab:
opentoline('/Users/simondanielsson/Documents/F/F4/optimering/project/v1.1/
nonlinearmin_test.m',101,0)">line 101</a>)
In <a
href="matlab:matlab.internal.language.introspective.errorDocCallback('nonlinearmin_
```

```
test>testNegDef',
'/Users/simondanielsson/Documents/F/F4/optimering/project/v1.1/nonlinearmin_test.m'
, 73)" style="font-weight:bold">nonlinearmin_test>testNegDef</a> (<a href="matlab:
opentoline('/Users/simondanielsson/Documents/F/F4/optimering/project/v1.1/
nonlinearmin_test.m',73,0)">line 73</a>)
In <a
href="matlab:matlab.internal.language.introspective.errorDocCallback('nonlinearmin_
test',
'/Users/simondanielsson/Documents/F/F4/optimering/project/v1.1/nonlinearmin_test.m'
, 7)" style="font-weight:bold">nonlinearmin_test</a> (<a href="matlab:
opentoline('/Users/simondanielsson/Documents/F/F4/optimering/project/v1.1/
nonlinearmin_test.m',7,0)">line 7</a>)]#
[#Warning: The function does not seem to be convex: cannot be minimized.]#
[#> In <a
href="matlab:matlab.internal.language.introspective.errorDocCallback('nonlinearmin_
test>testQuadratics',
'/Users/simondanielsson/Documents/F/F4/optimering/project/v1.1/nonlinearmin_test.m'
, 101)" style="font-weight:bold">nonlinearmin_test>testQuadratics</a> (<a
href="matlab:
opentoline('/Users/simondanielsson/Documents/F/F4/optimering/project/v1.1/
nonlinearmin_test.m',101,0)">line 101</a>)
In <a
href="matlab:matlab.internal.language.introspective.errorDocCallback('nonlinearmin_
test>testNegDef',
'/Users/simondanielsson/Documents/F/F4/optimering/project/v1.1/nonlinearmin_test.m'
, 73)" style="font-weight:bold">nonlinearmin_test>testNegDef</a> (<a href="matlab:
opentoline('/Users/simondanielsson/Documents/F/F4/optimering/project/v1.1/
nonlinearmin_test.m',73,0)">line 73</a>)
In <a
href="matlab:matlab.internal.language.introspective.errorDocCallback('nonlinearmin_
test',
'/Users/simondanielsson/Documents/F/F4/optimering/project/v1.1/nonlinearmin_test.m'
, 7)" style="font-weight:bold">nonlinearmin_test</a> (<a href="matlab:
opentoline('/Users/simondanielsson/Documents/F/F4/optimering/project/v1.1/
nonlinearmin_test.m',7,0)">line 7</a>)]#
--------------------------------------------------------------------------------
---------
Minimizing indefinite quadratic form, has no minimum
[#Warning: The function does not seem to be convex: cannot be minimized.]#
[#> In <a
href="matlab:matlab.internal.language.introspective.errorDocCallback('nonlinearmin_
test>testQuadratics',
'/Users/simondanielsson/Documents/F/F4/optimering/project/v1.1/nonlinearmin_test.m'
, 101)" style="font-weight:bold">nonlinearmin_test>testQuadratics</a> (<a
href="matlab:
opentoline('/Users/simondanielsson/Documents/F/F4/optimering/project/v1.1/
nonlinearmin_test.m',101,0)">line 101</a>)
In <a
href="matlab:matlab.internal.language.introspective.errorDocCallback('nonlinearmin_
test>testInDef',
'/Users/simondanielsson/Documents/F/F4/optimering/project/v1.1/nonlinearmin_test.m'
, 89)" style="font-weight:bold">nonlinearmin_test>testInDef</a> (<a href="matlab:
opentoline('/Users/simondanielsson/Documents/F/F4/optimering/project/v1.1/
nonlinearmin_test.m',89,0)">line 89</a>)
In <a
href="matlab:matlab.internal.language.introspective.errorDocCallback('nonlinearmin_
test',
'/Users/simondanielsson/Documents/F/F4/optimering/project/v1.1/nonlinearmin_test.m'
, 10)" style="font-weight:bold">nonlinearmin_test</a> (<a href="matlab:
```

```
opentoline('/Users/simondanielsson/Documents/F/F4/optimering/project/v1.1/
nonlinearmin_test.m',10,0)">line 10</a>)]#
[#Warning: The function does not seem to be convex: cannot be minimized.]#
[#> In <a
href="matlab:matlab.internal.language.introspective.errorDocCallback('nonlinearmin_
test>testQuadratics',
'/Users/simondanielsson/Documents/F/F4/optimering/project/v1.1/nonlinearmin_test.m'
, 101)" style="font-weight:bold">nonlinearmin_test>testQuadratics</a> (<a
href="matlab:
opentoline('/Users/simondanielsson/Documents/F/F4/optimering/project/v1.1/
nonlinearmin_test.m',101,0)">line 101</a>)
In <a
href="matlab:matlab.internal.language.introspective.errorDocCallback('nonlinearmin_
test>testInDef',
'/Users/simondanielsson/Documents/F/F4/optimering/project/v1.1/nonlinearmin_test.m'
, 89)" style="font-weight:bold">nonlinearmin_test>testInDef</a> (<a href="matlab:
opentoline('/Users/simondanielsson/Documents/F/F4/optimering/project/v1.1/
nonlinearmin_test.m',89,0)">line 89</a>)
In <a
href="matlab:matlab.internal.language.introspective.errorDocCallback('nonlinearmin_
test',
'/Users/simondanielsson/Documents/F/F4/optimering/project/v1.1/nonlinearmin_test.m'
, 10)" style="font-weight:bold">nonlinearmin_test</a> (<a href="matlab:
opentoline('/Users/simondanielsson/Documents/F/F4/optimering/project/v1.1/
nonlinearmin_test.m',10,0)">line 10</a>)]#
--------------------------------------------------------------------------------
---------
Minimizing rosenbrock function, min at (1, 1)
Initial point [200, 200]

x =

    0.9568
    0.9153


no_its =

    30


normg =

    0.0400

--------------------------------------------------------------------------------
---------
Minimizing rosenbrock function, min at (1, 1)
Initial point [399, -711]

x =

    0.9899
    0.9782


no_its =

     8
```

```
normg =

    0.6804

--------------------------------------------------------------------------------
---------
Minimizing rosenbrock function, min at (1, 1)
Initial point [399, -711]

x =

    0.9901
    0.9788


no_its =

     8


normg =

    0.6666

--------------------------------------------------------------------------------
---------
Minimizing rosenbrock function, min at (1, 1)
Initial point [3990, -7111]

x =

    0.9785
    0.9574


no_its =

    10


normg =

    0.0196

--------------------------------------------------------------------------------
---------
Minimizing rosenbrock function, min at (1, 1)
Initial point [3990, -7111]

x =

    0.9785
    0.9573


no_its =
```

```
    10


normg =

    0.0196

--------------------------------------------------------------------------------
---------
Minimizing rosenbrock function, min at (1, 1)
Initial point [200, 200]

x =

    0.9568
    0.9153


no_its =

    30


normg =

    0.0400

--------------------------------------------------------------------------------
---------
Minimizing rosenbrock function, min at (1, 1)
Initial point [200, 200]

x =

    0.9659
    0.9327


no_its =

    40


normg =

    0.0314

--------------------------------------------------------------------------------
---------
Minimizing Booth, min at (1, 3)
Initial point [9, 10]

x =

    1.0000
    3.0000


no_its =
```

```
     4


normg =

   1.7099e-07

------------------------------------------------------------------------------
---------
Minimizing Booth, min at (1, 3)
Initial point [9, 10]

x =

    1.0000
    3.0000


no_its =

     4


normg =

   1.7099e-07

------------------------------------------------------------------------------
---------
Minimizing Booth, min at (1, 3)
Initial point [113, 999]

x =

    0.9971
    2.9966


no_its =

     4


normg =

    0.0804

------------------------------------------------------------------------------
---------
Minimizing Booth, min at (1, 3)
Initial point [113, 999]

x =

    0.9971
    2.9966
```

```
no_its =

     4


normg =

    0.0804

--------------------------------------------------------------------------------
---------
Minimizing Styblinski-Tang function, min at (-2.904, ..., -2.904)
Initial point [-3, -3]

x =

   -2.9035
   -2.9035


no_its =

     4


normg =

     0

--------------------------------------------------------------------------------
---------
Minimizing Styblinski-Tang function, min at (-2.904, ..., -2.904)
Initial point [-3, -3]

x =

   -2.9035
   -2.9035


no_its =

     4


normg =

     0

--------------------------------------------------------------------------------
---------
Minimizing Styblinski-Tang function, min at (-2.904, ..., -2.904)
Initial point [-1.5, -1.5]

x =

   -2.9035
   -2.9035
```

```
no_its =

     4


normg =

   5.1238e-06

--------------------------------------------------------------------------------
---------
Minimizing Styblinski-Tang function, min at (-2.904, ..., -2.904)
Initial point [-1.5, -1.5]

x =

   -2.9035
   -2.9035


no_its =

     4


normg =

   4.1431e-06

--------------------------------------------------------------------------------
---------
Minimizing Styblinski-Tang function, min at (-2.904, ..., -2.904)
Initial point [-1, -1]

x =

    -1
    -1


no_its =

     2


normg =

   23.3345

--------------------------------------------------------------------------------
---------
Minimizing Styblinski-Tang function, min at (-2.904, ..., -2.904)
Initial point [-1, -1]

x =

    -1
    -1
```

```
no_its =

     2

normg =

   23.3345

diary off
```