```
C =

     1     0     0     0
     0     1     0     0
     0     0     1     0
     0     0     0     1


L =

     2    -1     0    -1
    -1     2    -1     0
     0    -1     2    -1
    -1     0    -1     2


x0 =

     0     1     1     0


A =

    -2     1     0     1
     1    -2     1     0
     0     1    -2     1
     1     0     1    -2


ans =

   -4.0000
   -2.0000
   -2.0000
   -0.0000


f1 =

     1
     0
     0
     0


f2 =

     0
     1
     0
     0


f3 =

     0
     0
```

```
     1
     0


f4 =

     0
     0
     0
     1


E =

     0
     1
     0
     0


bf1 =

     0
     0
     1
     0


c1 =

     0     1     0     0
     0     0     1     0


ans =

     1


ans =

     1


CE =

     1
     0


CEg =

     1     0


N =

     0     0
```

```
     1     0
     0     0
     0     0


NC =

     0     0     0     0
     0     1     0     0
     0     0     0     0
     0     0     0     0


T =

     1     0     0     0
     0     0     0     0
     0     0     1     0
     0     0     0     1


NCA =

     0     0     0     0
     1    -2     1     0
     0     0     0     0
     0     0     0     0


A1 =

    -2     1     0     1
     0     0     0     0
     0     1    -2     1
     1     0     1    -2


ans =

     4

ALL OK

Calling SDPT3 4.0: 38 variables, 12 equality constraints
   For improved efficiency, SDPT3 is solving the dual problem.
------------------------------------------------------------

 num. of constraints = 12
 dim. of sdp    var  =  4,   num. of sdp  blk  =  1
 dim. of linear var  = 28
*******************************************************************
   SDPT3: Infeasible path-following algorithms
*******************************************************************
 version  predcorr  gam  expon  scale_data
   HKM      1      0.000   1        0
it pstep dstep pinfeas dinfeas  gap      prim-obj      dual-obj    cputime
-------------------------------------------------------------------
 0|0.000|0.000|7.9e+01|1.5e+01|3.2e+03| 6.500000e+01  0.000000e+00| 0:0:00| chol  1  1
```

```
 1|1.000|0.767|2.5e-05|3.5e+00|7.8e+02| 6.974738e+01  0.000000e+00| 0:0:00| chol  1  1
 2|1.000|0.988|3.0e-05|5.4e-02|6.1e+01| 5.203606e+01  0.000000e+00| 0:0:00| chol  1  1
 3|0.991|1.000|1.0e-06|1.0e-03|1.3e+00| 1.261096e+00  0.000000e+00| 0:0:00| chol  1  1
 4|0.989|1.000|2.5e-08|1.0e-04|1.7e-02| 1.377172e-02  0.000000e+00| 0:0:00| chol  1  1
 5|0.989|1.000|3.8e-09|1.0e-05|4.3e-04| 1.512772e-04  0.000000e+00| 0:0:00| chol  1  1
 6|0.990|1.000|2.5e-09|1.0e-06|2.4e-05| 1.651642e-06  0.000000e+00| 0:0:00| chol  1  1
 7|1.000|0.987|1.2e-07|1.3e-08|4.9e-07| 3.058242e-07  0.000000e+00| 0:0:00| chol  1  1
 8|0.998|0.869|3.6e-09|1.8e-09|1.4e-08|-3.482303e-08  0.000000e+00| 0:0:00|
  stop: max(relative gap, infeasibilities) < 1.49e-08
------------------------------------------------------------------------
 number of iterations   =  8
 primal objective value = -3.48230283e-08
 dual   objective value =  0.00000000e+00
 gap := trace(XZ)       = 1.36e-08
 relative gap           = 1.36e-08
 actual relative gap    = -3.48e-08
 rel. primal infeas (scaled problem)   = 3.57e-09
 rel. dual     "        "       "      = 1.79e-09
 rel. primal infeas (unscaled problem) = 0.00e+00
 rel. dual     "        "       "      = 0.00e+00
 norm(X), norm(y), norm(Z) = 1.8e+01, 2.0e+00, 4.3e+00
 norm(A), norm(b), norm(C) = 1.1e+01, 1.0e+00, 3.8e+00
 Total CPU time (secs)  = 0.09
 CPU time per iteration = 0.01
 termination code       =  0
 DIMACS: 3.6e-09  0.0e+00  2.3e-09  0.0e+00  -3.5e-08  1.4e-08
------------------------------------------------------------------------

------------------------------------------------------------
Status: Solved
Optimal value (cvx_optval): +1


H =

     0


TH =

     5

>> F

F =

   -2.0000    0.4870    0.0000    1.0000
         0   -2.6281    0.5205         0
         0    0.5226   -2.5857    1.0000
    1.0000    0.0000    0.5218   -2.0000

>> N

N =

     0     0
     1     0
     0     0
```

```
     0     0

>> T

T =

     1     0     0     0
     0     0     0     0
     0     0     1     0
     0     0     0     1

>> A1

A1 =

    -2     1     0     1
     0     0     0     0
     0     1    -2     1
     1     0     1    -2

>> P

P =

   (1,1)       0.4705
   (2,2)       0.3543
   (3,3)       0.3559
   (4,4)       0.4720

>>
```