```
● (base) zahid@zahid lab15 % make
  gcc −O3 −Wall −std=c99 −c QRA.c
  gcc  main.o matrix.o trimatrix.o QRA.o QRdecomp.o Hessenberg.o  −o main.exe
● (base) zahid@zahid lab15 % ./main.exe
  Input N: 6

Original Matrix:

 A =
 |   7.584e−01,   2.979e−01,   9.773e−01,   3.172e−01,   6.062e−01,   7.961e−01 |
 |   2.979e−01,   4.435e−01,   9.636e−01,   1.500e−01,   8.090e−02,   8.396e−01 |
 |   9.773e−01,   9.636e−01,   7.027e−01,   6.688e−01,   7.781e−01,   7.247e−01 |
 |   3.172e−01,   1.500e−01,   6.688e−01,   5.402e−01,   8.398e−01,   2.350e−01 |
 |   6.062e−01,   8.090e−02,   7.781e−01,   8.398e−01,   6.353e−01,   4.423e−01 |
 |   7.961e−01,   8.396e−01,   7.247e−01,   2.350e−01,   4.423e−01,   4.473e−01 |

Reduction to Tridiagonal Form:

 T =
 |    7.584000e−01,  −1.464831e+00,   0.000000e+00,   0.000000e+00,   0.000000e+00,   0.000000e+00 |
 |   −1.464831e+00,   2.624534e+00,  −9.630152e−01,   0.000000e+00,   0.000000e+00,   0.000000e+00 |
 |    0.000000e+00,  −9.630152e−01,  −2.025231e−01,  −2.647607e−01,   0.000000e+00,   0.000000e+00 |
 |    0.000000e+00,   0.000000e+00,  −2.647607e−01,  −7.632367e−02,   4.834307e−01,   0.000000e+00 |
 |    0.000000e+00,   0.000000e+00,   0.000000e+00,   4.834307e−01,   6.808279e−01,  −1.609247e−01 |
 |    0.000000e+00,   0.000000e+00,   0.000000e+00,   0.000000e+00,  −1.609247e−01,  −2.575152e−01 |

Rayleigh quotient's eigenvalue: −0.334103
After QR Algorithm:

 T =
 |    3.618658e+00,   0.000000e+00,   0.000000e+00,   0.000000e+00,   0.000000e+00,   0.000000e+00 |
 |    0.000000e+00,   9.448871e−01,   0.000000e+00,   0.000000e+00,   0.000000e+00,   0.000000e+00 |
 |    0.000000e+00,   0.000000e+00,  −7.883735e−01,   0.000000e+00,   0.000000e+00,   0.000000e+00 |
 |    0.000000e+00,   0.000000e+00,   0.000000e+00,  −3.341035e−01,   0.000000e+00,   0.000000e+00 |
 |    0.000000e+00,   0.000000e+00,   0.000000e+00,   0.000000e+00,   2.894399e−01,   0.000000e+00 |
 |    0.000000e+00,   0.000000e+00,   0.000000e+00,   0.000000e+00,   0.000000e+00,  −2.031085e−01 |

○ (base) zahid@zahid lab15 %
```