```
This is the original matrix:
   98.0000  -49.0000         0         0         0         0
  -49.0000   98.0000  -49.0000         0         0         0
         0  -49.0000   98.0000  -49.0000         0         0
         0         0  -49.0000   98.0000  -49.0000         0
         0         0         0  -49.0000   98.0000  -49.0000
         0         0         0         0  -49.0000   98.0000

This is the analytical solution of the eigenvalues:
   9.7051e+00
   3.6898e+01
   7.6193e+01
   1.1981e+02
   1.5910e+02
   1.8629e+02

This is the analytical solution of the eigenvectors:
    0.2319   0.4179   0.5211   0.5211   0.4179   0.2319
   0.4179   0.5211   0.2319  -0.2319  -0.5211  -0.4179
   0.5211   0.2319  -0.4179  -0.4179   0.2319   0.5211
   0.5211  -0.2319  -0.4179   0.4179   0.2319  -0.5211
   0.4179  -0.5211   0.2319   0.2319  -0.5211   0.4179
   0.2319  -0.4179   0.5211  -0.5211   0.4179  -0.2319

This is the armadillo solution of the eigenvalues:
   9.7051e+00
   3.6898e+01
   7.6193e+01
   1.1981e+02
   1.5910e+02
   1.8629e+02

This is the armadillo solution of the eigenvectors:
   -0.2319  -0.4179   0.5211  -0.5211   0.4179  -0.2319
  -0.4179  -0.5211   0.2319   0.2319  -0.5211   0.4179
  -0.5211  -0.2319  -0.4179   0.4179   0.2319  -0.5211
  -0.5211   0.2319  -0.4179  -0.4179   0.2319   0.5211
  -0.4179   0.5211   0.2319  -0.2319  -0.5211  -0.4179
  -0.2319   0.4179   0.5211   0.5211   0.4179   0.2319
```