Console

A =

  1.   1.   0.5
  1.   1.   0.25
  0.5   0.25   2.

B =

  2.   2.   2.
  2.   5.   5.
  2.   5.   11.

Diagonalized Matrix B =

  14.430897   0   0
  0   2.6151991   0
  0   0   0.9539034

Eigenvectors of B are :

|0.25489| |-0.95670| |8.20181|
|0.58423| |-1.29428| |-5.28995|
|1.00000| |1.00000| |1.00000|

 Eigenvectors of A =

   1.6255522 - 0.1319435   1.5980034
 - 0.1319435   1.0926142 - 0.3476253
   1.5980034 - 0.3476253   1.4578023

Note : Computation Error in book in caculation of eigenvector of B thus for A