

AMS 526

Homework 4

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Report

- Two matrix A and B:

Matrix A is

A =

```
2    3    2
10   3    4
3    6    1
```

Matrix B is

B =

```
6    2    1
2    3    1
1    1    1
```

Compare the Result of [function QRshift_base](#) (for a) And [function QRshift](#) (for b) and the build in [function eig](#)

Matrix	Function convergence	Function eig	result
A = 2 3 2 10 3 4 3 6 1	matrix_eigA = 11.0000 0.7220 -6.1864 0 -3.0000 -3.8996 0 0 -2.0000	ans = 11.0000 -2.0000 -3.0000	The eigenvalues are the same
B = 6 2 1 2 3 1 1 1 1	matrix_eigB = 7.2880 0.0000 0 0 2.1331 0 0 0 0.5789	ans = 0.5789 2.1331 7.2880	The eigenvalues are the same