2. Values from my implementation and LAPACK function dgeev seem to output numbers very close to each other. For following matrix

```
        4,      -30,      60,       -35,
        -30,    300,      -675,     420,
        60,     -675,     1620,     -1050,
        -35,    420,      -1050,    700
```

output is

```
      jacobi method:
     0.166642861171900275       37.101491365127692745
2585.253810928922121093          1.478054844778173171
LAPACK implementation:
  2585.253810928920302104       37.101491365127600375
0.166642861171833745        1.478054844778099008
```

from which we see that errors are very small as we see them starting from around 13^{th} significant digit. I also ran some other arbitrarily chosen matrices for which the results were similar.

3. For determining effects of perturbations I had to edit my jacobi function so that it stops after $1000*N^2$ iterations even if matrix isn't diagonal yet. This is probably more than enough to get an reasonably close to best possible value with this algorithm.

I ran 100 runs with random diagonal N*N matrices with sizes evenly distributed having N between 5 and 15 (inclusive). Perturbation size was also determined randomly with perturbations ranging from 0.008% to 9% with 4.6% mean. This resulted in f having mean 1.22 and standard deviation 4.1. As one can see when examining raw output in file perturbations.out, for most matrices f is quite small (median being 0.027) but few matrices with f values even as high as over 20 raise the mean significantly.