## **Timing Report**

```
N = 10
1 process - 0.001555246sec
2 processes - 0.014924650sec
3 processes - 0.020116502sec
4 processes - 0.017337078sec
N = 100
1 process - 0.025794369sec
2 processes - 0.036429260sec
3 processes - 0.037747434sec
4 processes - 0.053712764sec
N = 1000
1 process - 0.187331418sec
2 processes - 0.166393023sec
3 processes - 0.175555757sec
4 processes - 0.185188464sec
```

The speed appears to get better for the multi-thread processes when the matrix increases to much larger sizes. Likely because of the startup time for threads.

The command line input was as follows:

```
java Jacobi (N) (processes) (left) (top) (right) (bottom) (epsilon)
```

all commandline inputs have a default as follows

n: 10

numProc: 4

left, top: 10.0

right, bottom: 800.00