OpenMP Execution Speed for a 3000x3000 Matrix

Number of Threads

Time in seconds

120 —

115.60

110 —

100 —

90 —

80 —

73.66

70 —

63.23

60 —

59.20

54.00

51.57

51.72

51.65

50 —

40 —

30 —

20 —

10 —

0 —

1   2   3   4   5   6   7   8

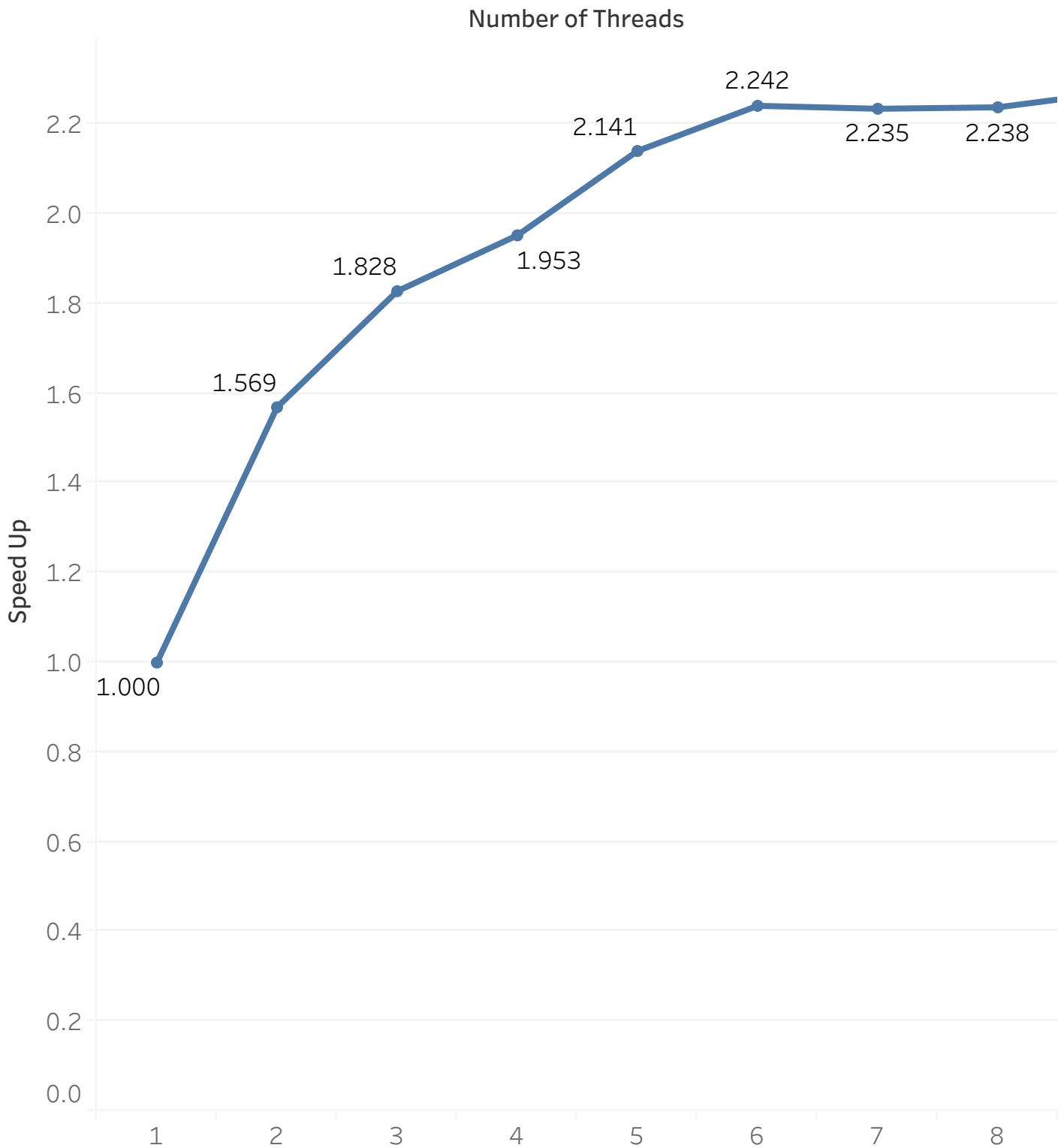The trend of Time in seconds for Number of Threads.

OpenMP Execution Speed for a 3000x3000 Matrix

Number of Threads

Time in seconds

120

110

100

90

80

70

60

51.54

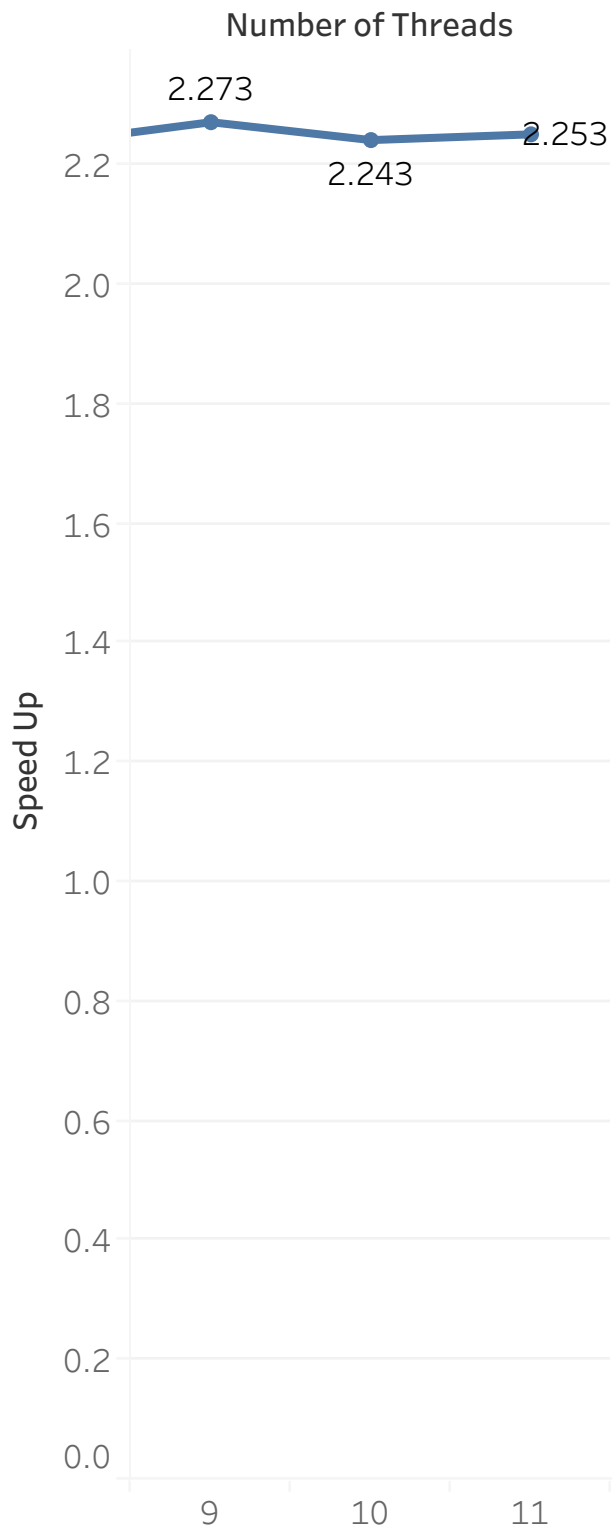50 — 50.86 — 51.32

40

30

20

10

0

9   10   11

The trend of Time in seconds for Number of Threads.
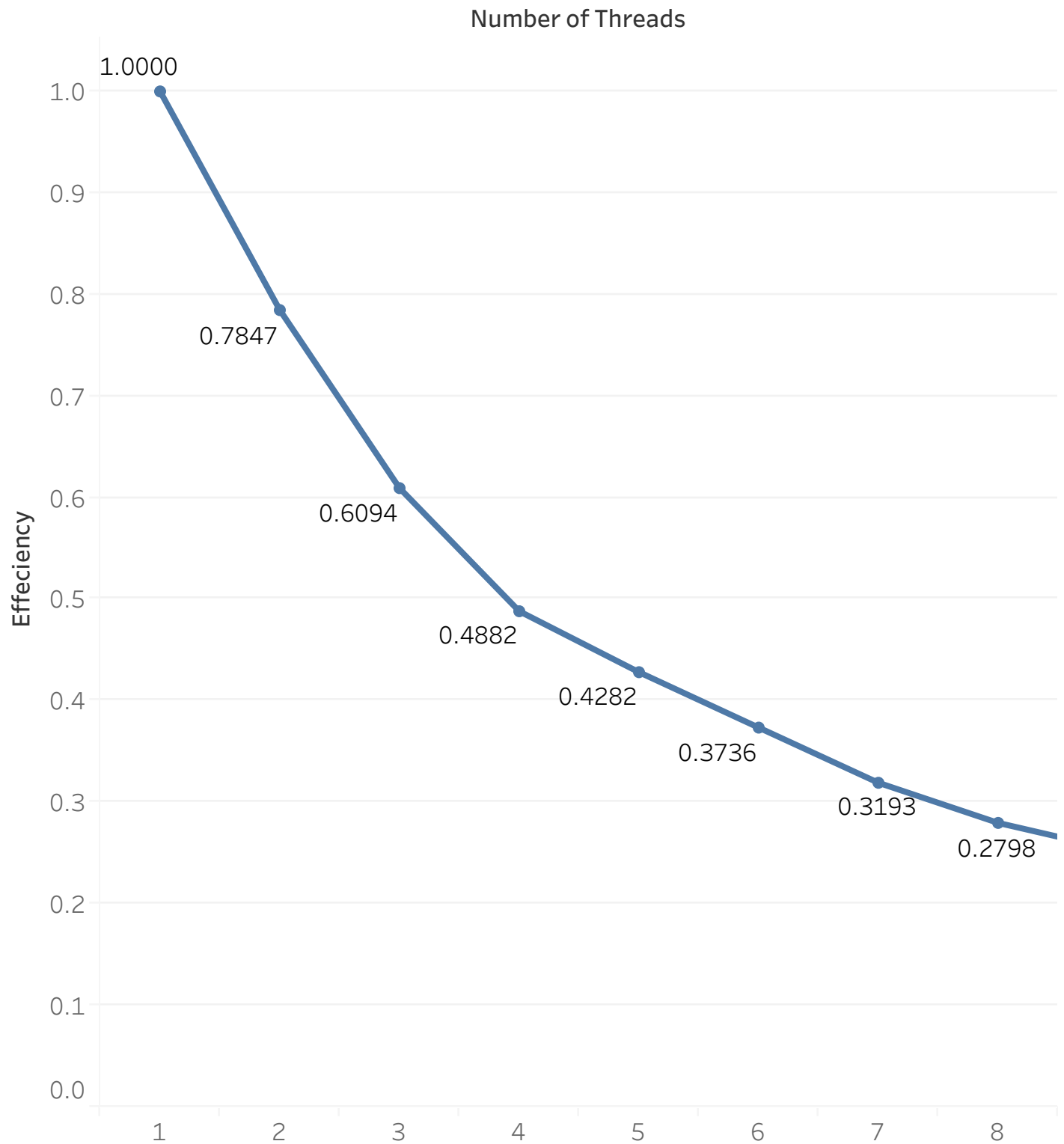
OpenMP Speed-Up Factor for a 3000x3000 Matrix

The trend of Speed Up for Number of Threads.
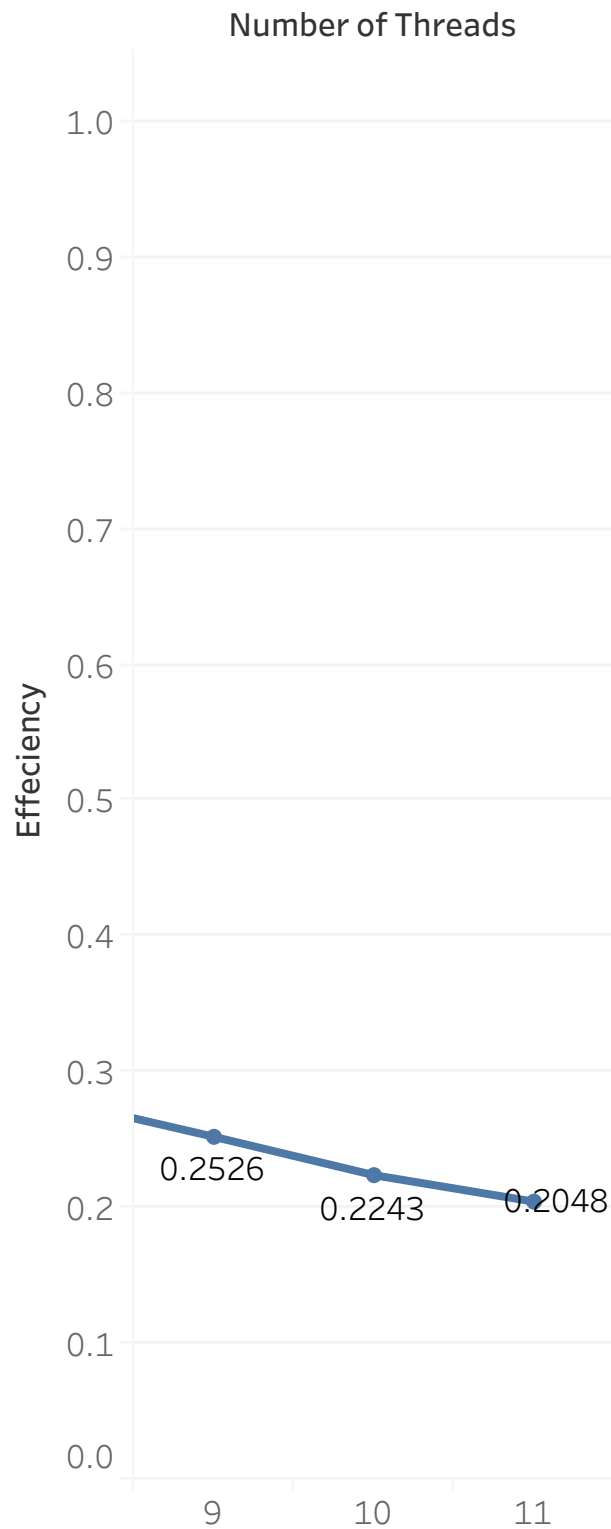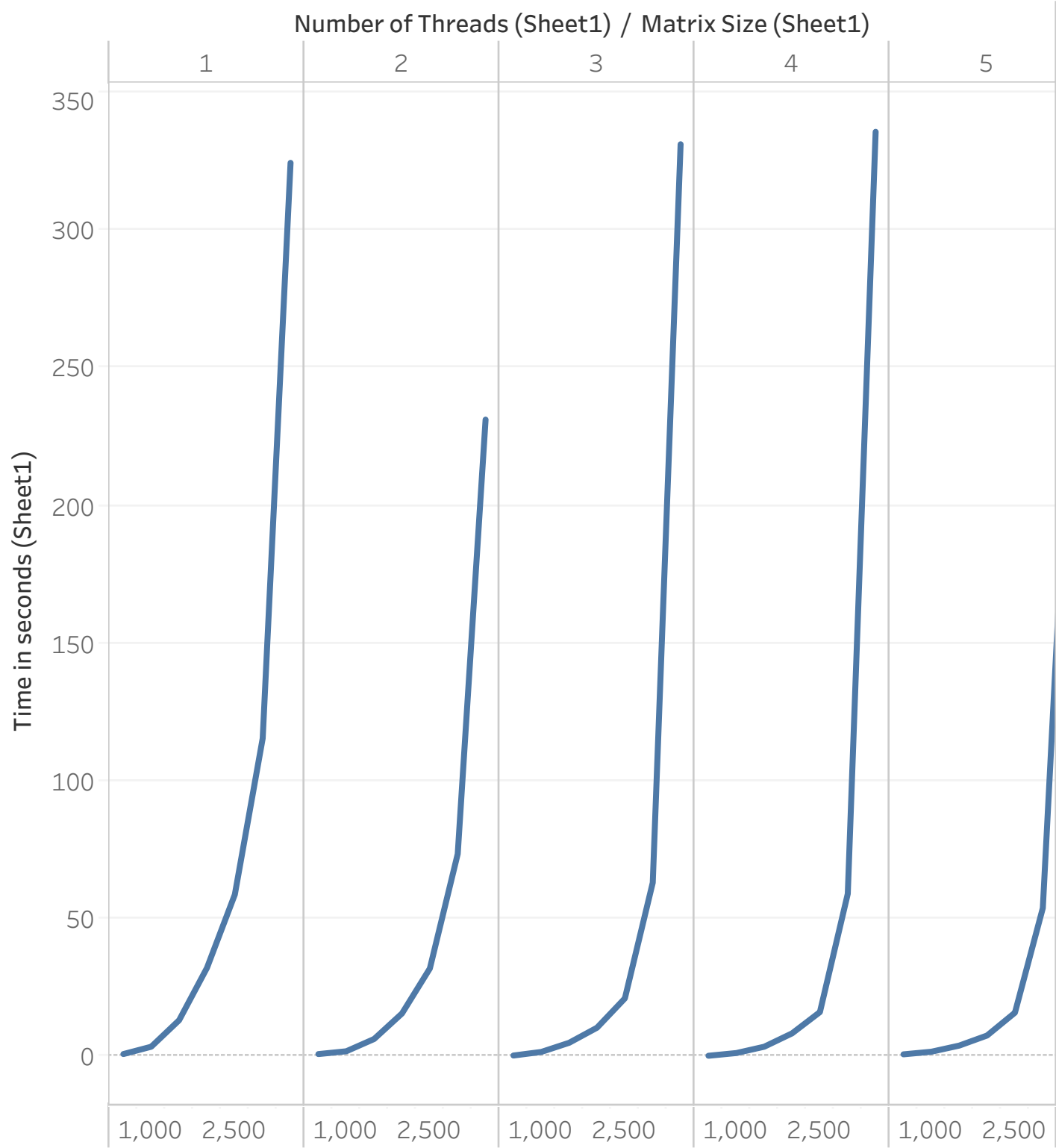
OpenMP Speed-Up Factor for a 3000x3000 Matrix

Number of Threads

The trend of Speed Up for Number of Threads.

OpenMP Implementation Effeciency

The trend of Effeciency for Number of Threads.

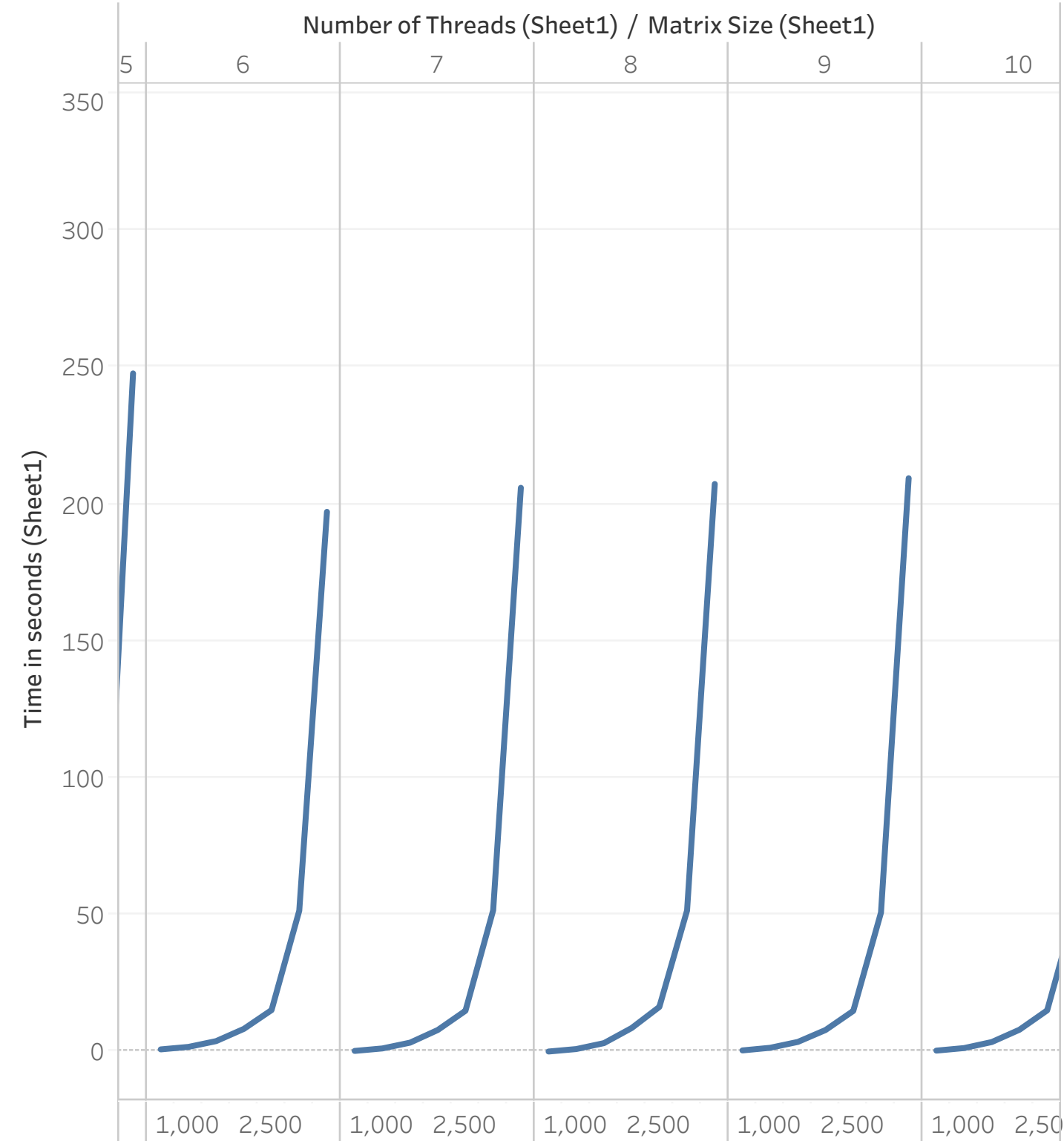# OpenMP Implementation Effeciency

Number of Threads

The trend of Effeciency for Number of Threads.

OpenMP Execution Time across Different Matrices

The trend of Time in seconds (Sheet1) for Number of Threads (Sheet1) and Matrix Size (Sheet1).

OpenMP Execution Time across Different Matrices

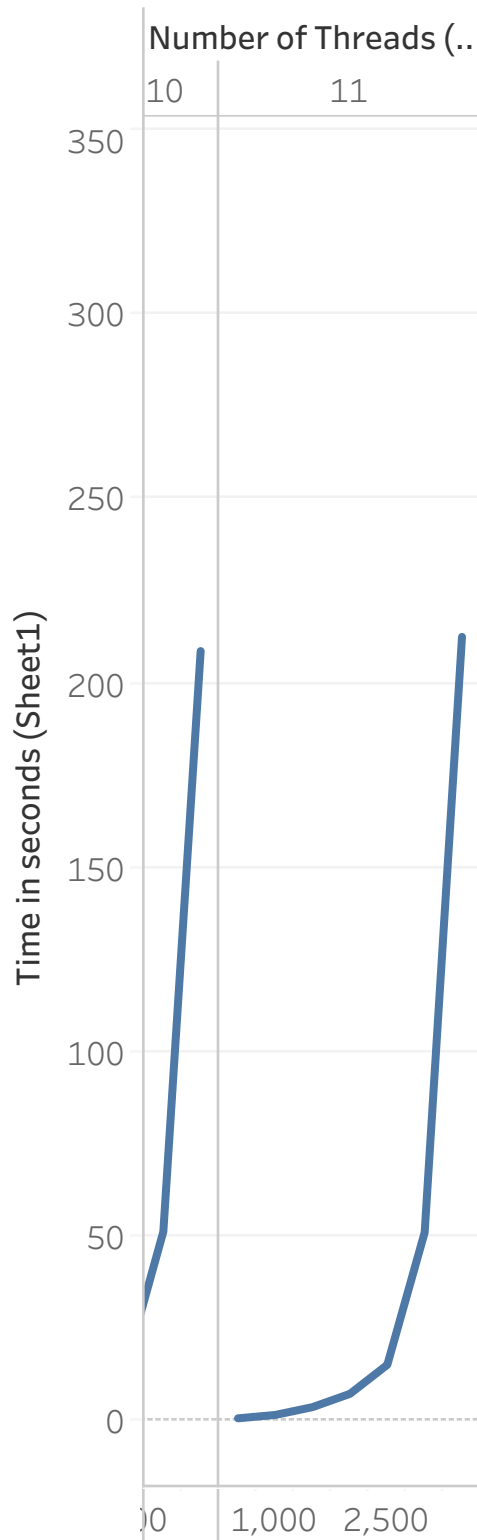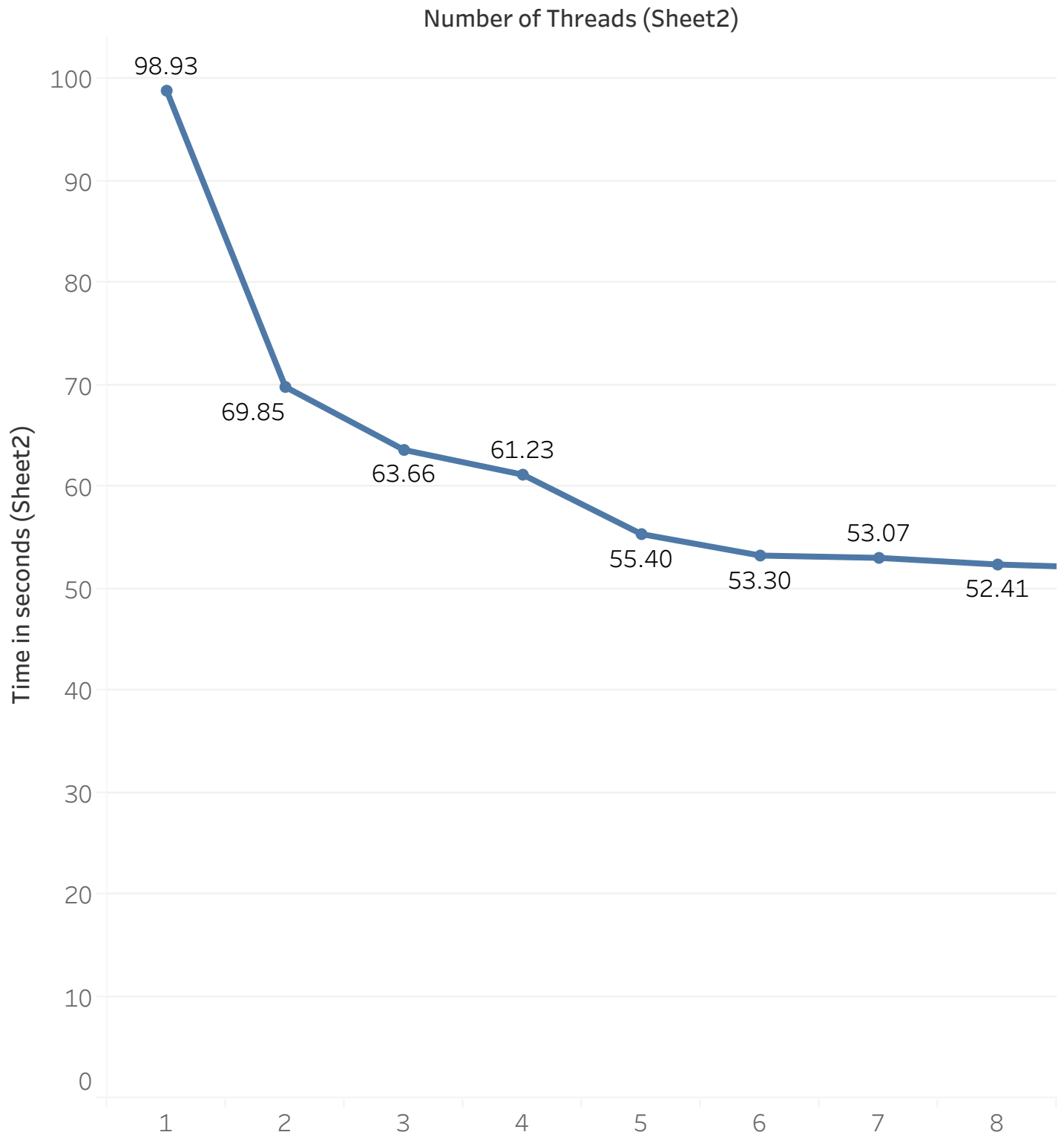**Number of Threads (Sheet1) / Matrix Size (Sheet1)**

The trend of Time in seconds (Sheet1) for Number of Threads (Sheet1) and Matrix Size (Sheet1).

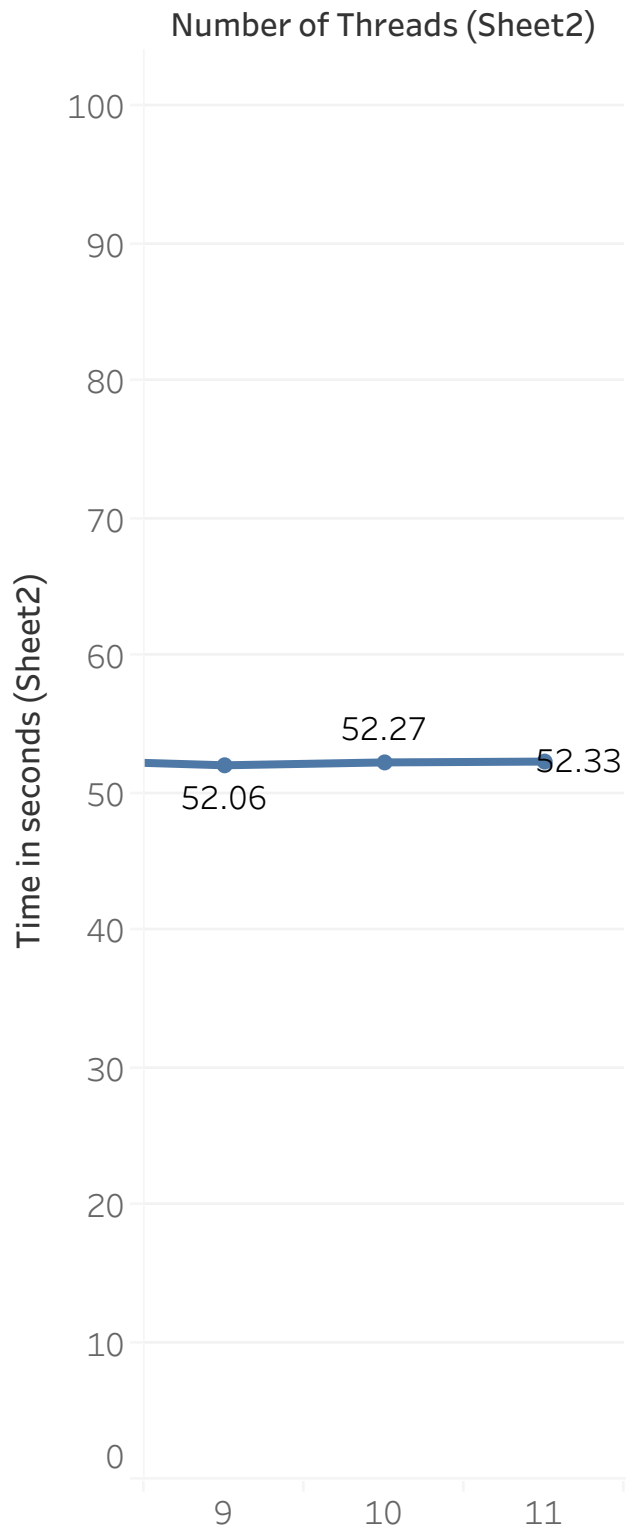# OpenMP Execution Time across Different Matrices

The trend of Time in seconds (Sheet1) for Number of Threads (Sheet1) and Matrix Size (Sheet1).
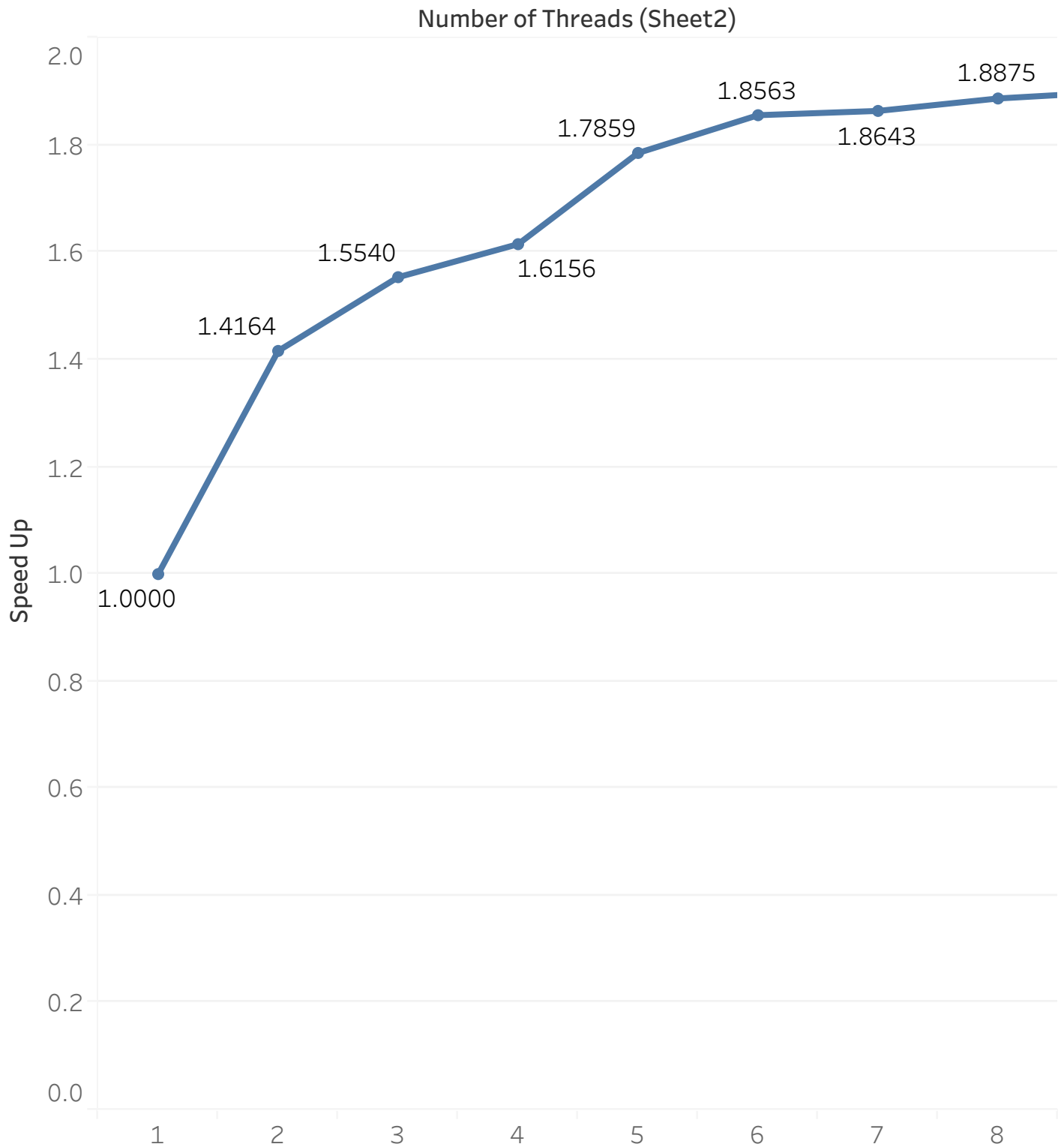
Pthreads Execution Speed for a 3000 x 3000 Matrix

The trend of Time in seconds (Sheet2) for Number of Threads (Sheet2).

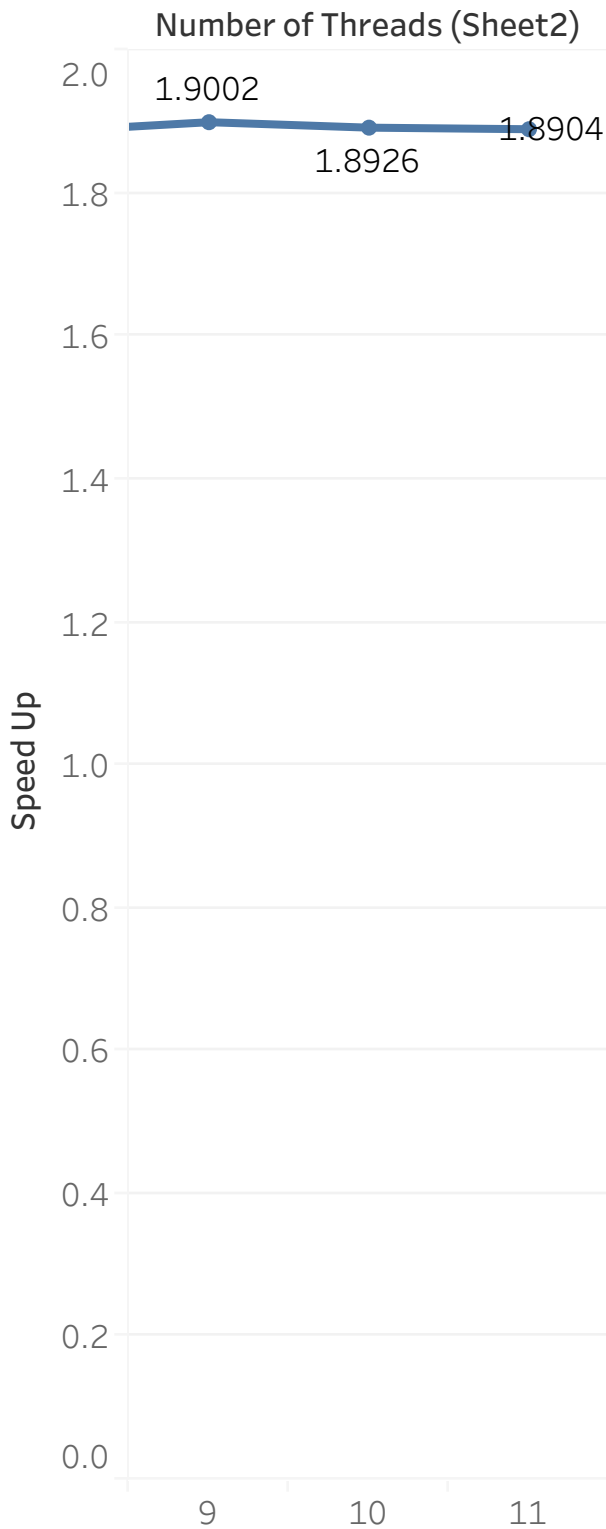# Pthreads Execution Speed for a 3000 x 3000 Matrix

Number of Threads (Sheet2)

Time in seconds (Sheet2)

52.06   52.27   52.33

9   10   11

The trend of Time in seconds (Sheet2) for Number of Threads (Sheet2).

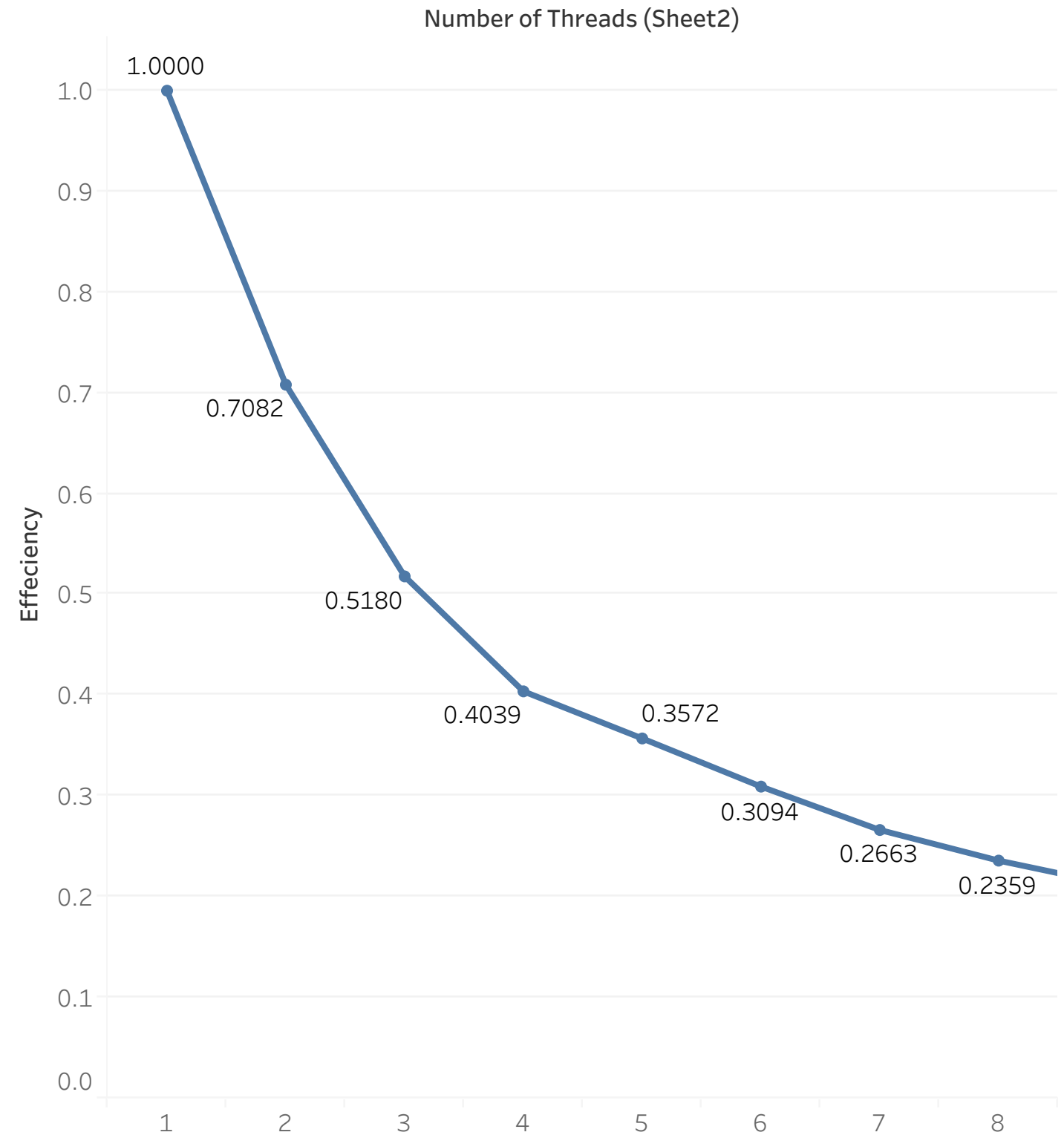# Pthreads Speed-Up Factor for a 3000 x 3000 Matrix

Number of Threads (Sheet2)

The trend of Speed Up for Number of Threads (Sheet2).

Pthreads Speed-Up Factor for a 3000 x 3000 Matrix
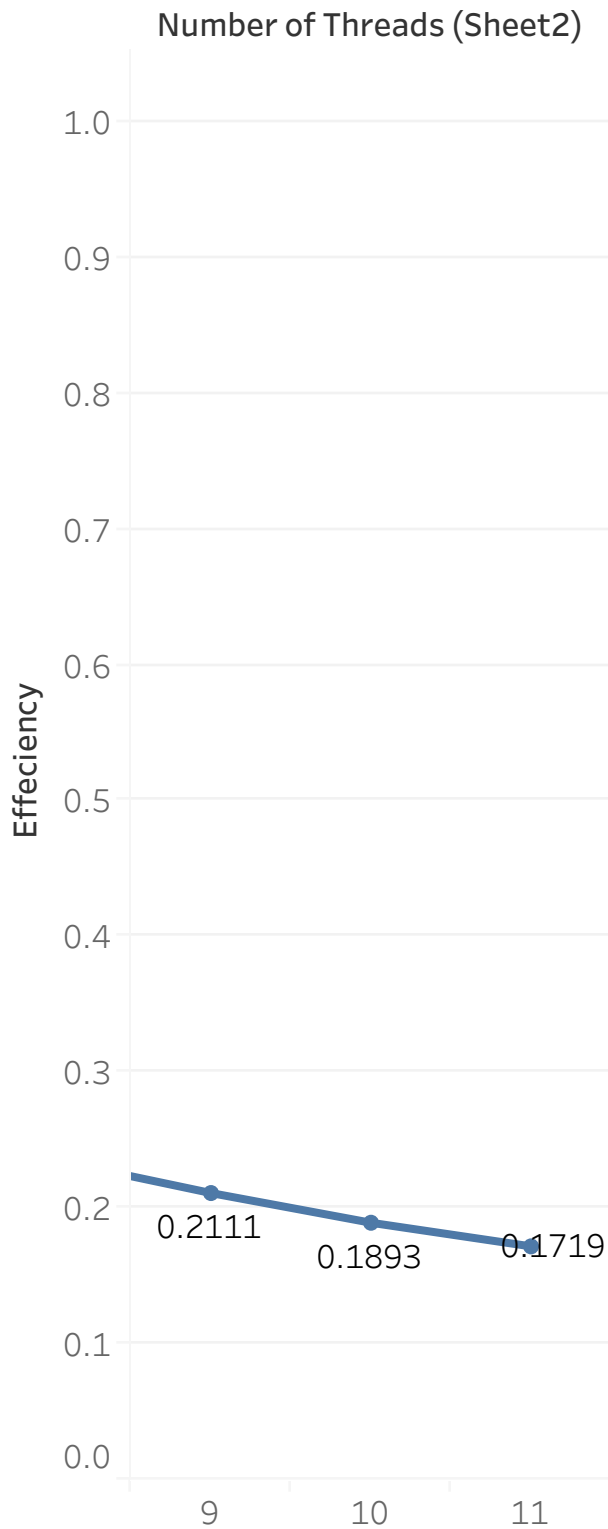
Number of Threads (Sheet2)

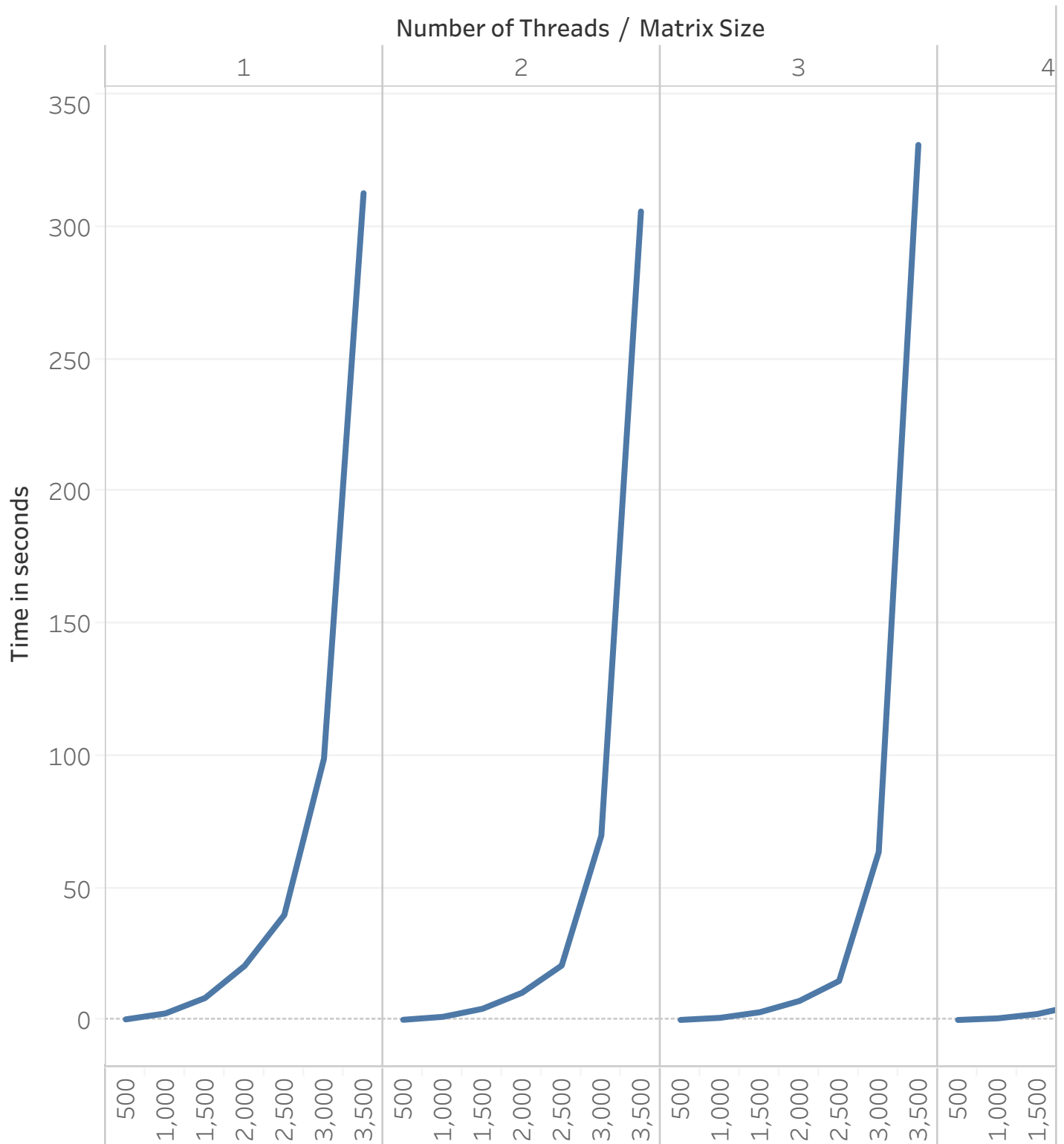The trend of Speed Up for Number of Threads (Sheet2).

Pthreads Implementation Effeciency

The trend of Effeciency for Number of Threads (Sheet2).

Pthreads Implementation Effeciency

Number of Threads (Sheet2)

The trend of Effeciency for Number of Threads (Sheet2).

Pthreads Execution Time across Different Matrices
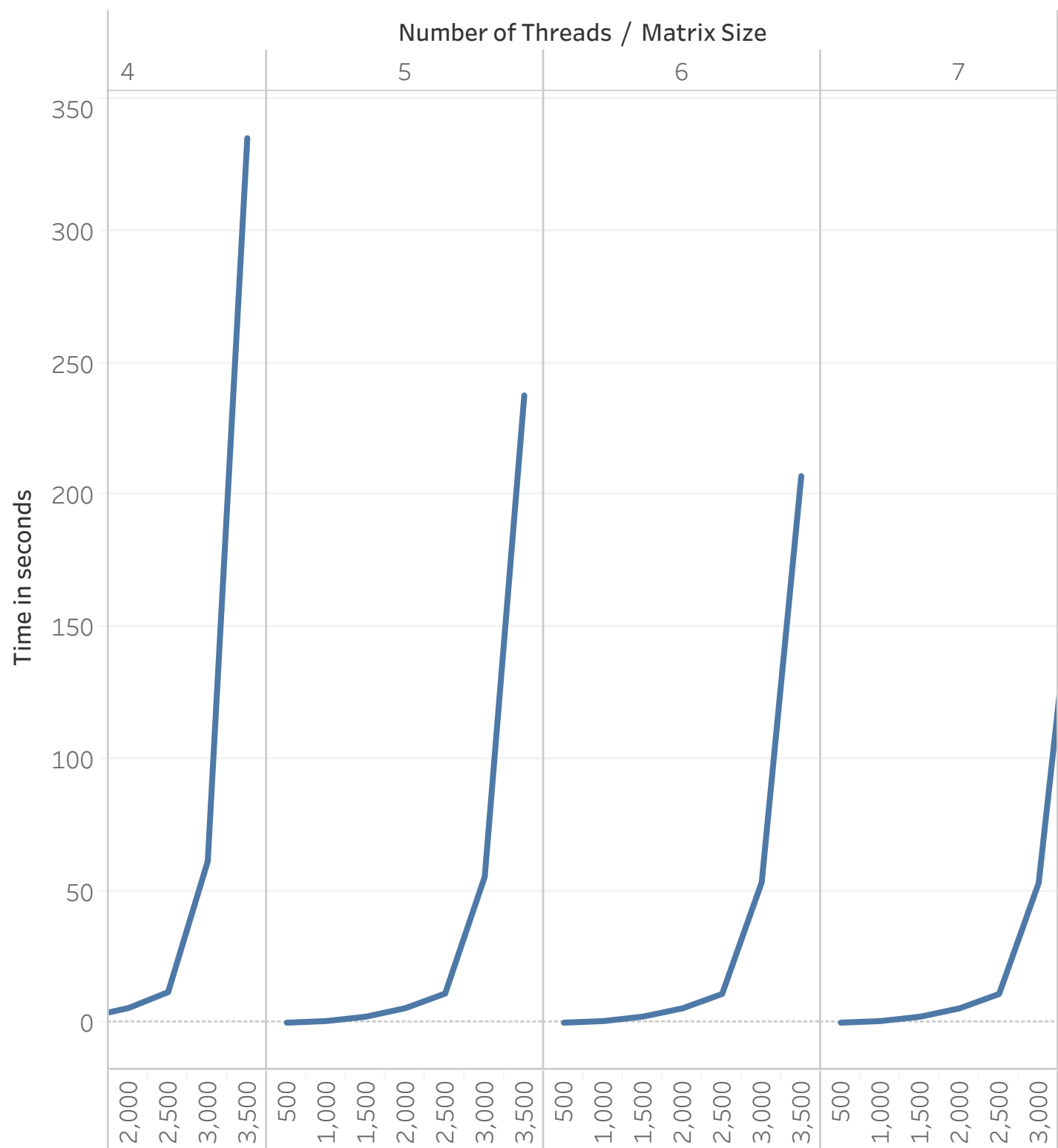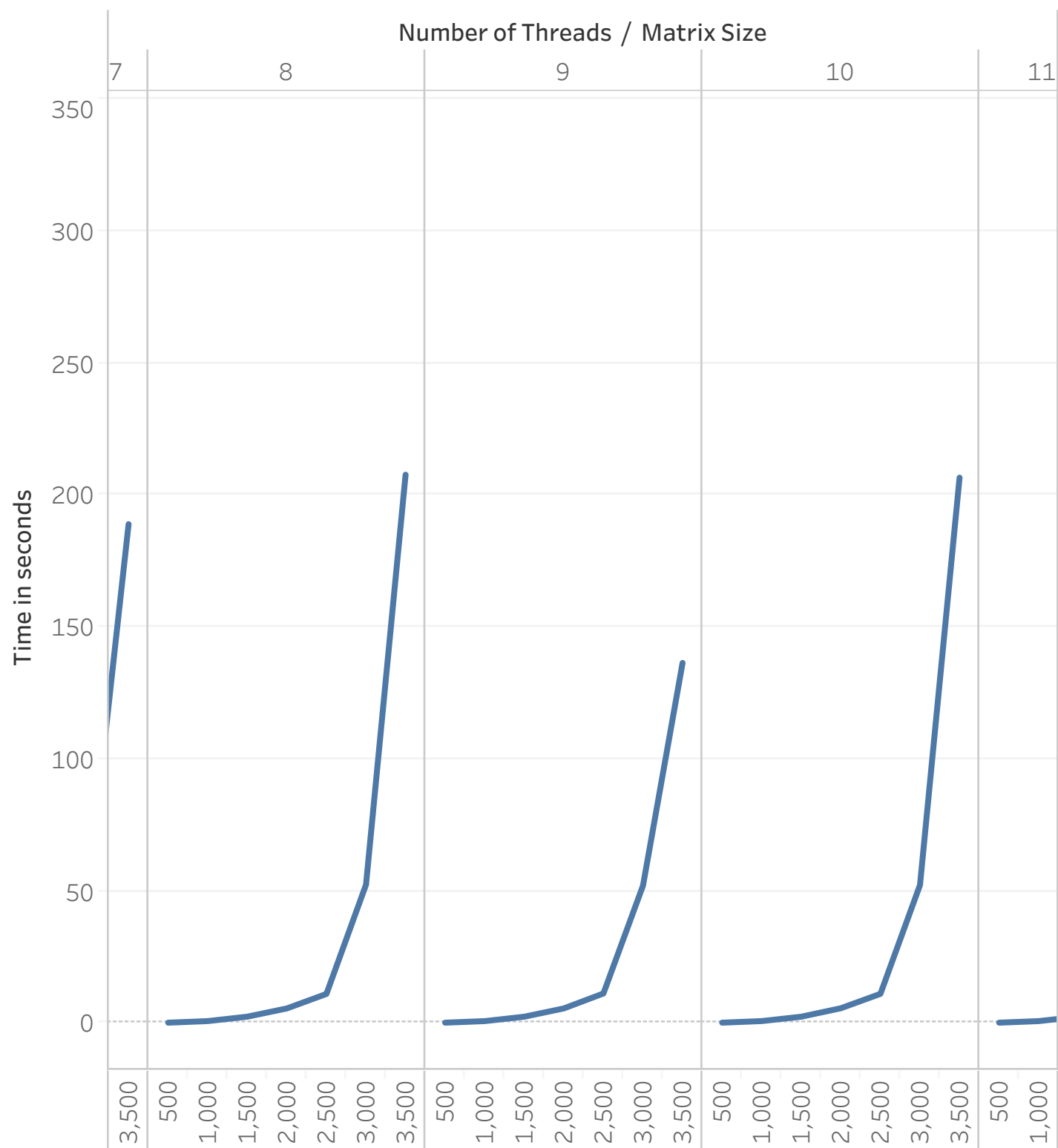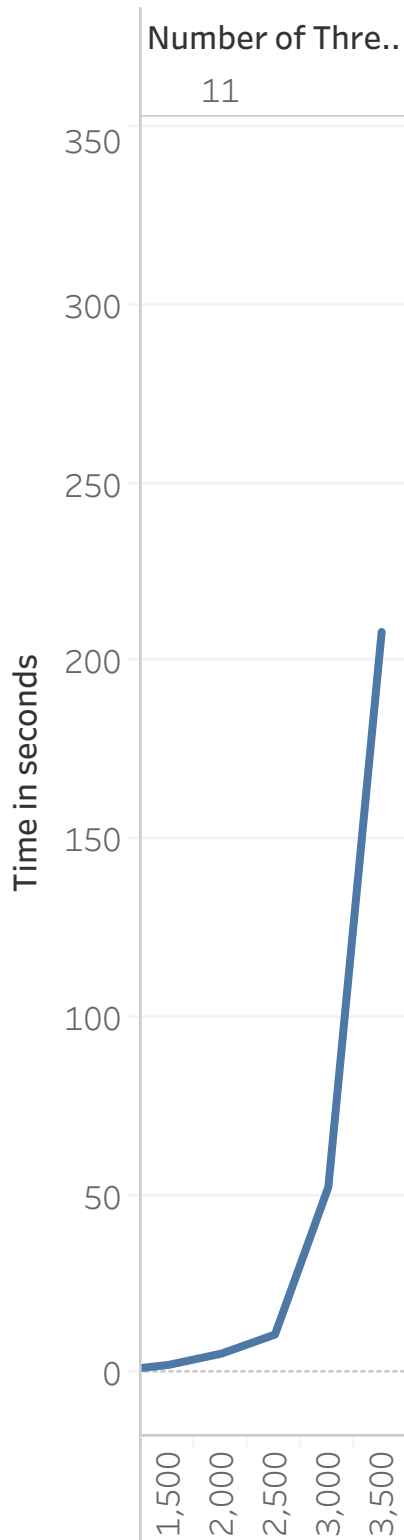
Number of Threads / Matrix Size

The trend of Time in seconds for Number of Threads and Matrix Size.

Pthreads Execution Time across Different Matrices

The trend of Time in seconds for Number of Threads and Matrix Size.

Pthreads Execution Time across Different Matrices

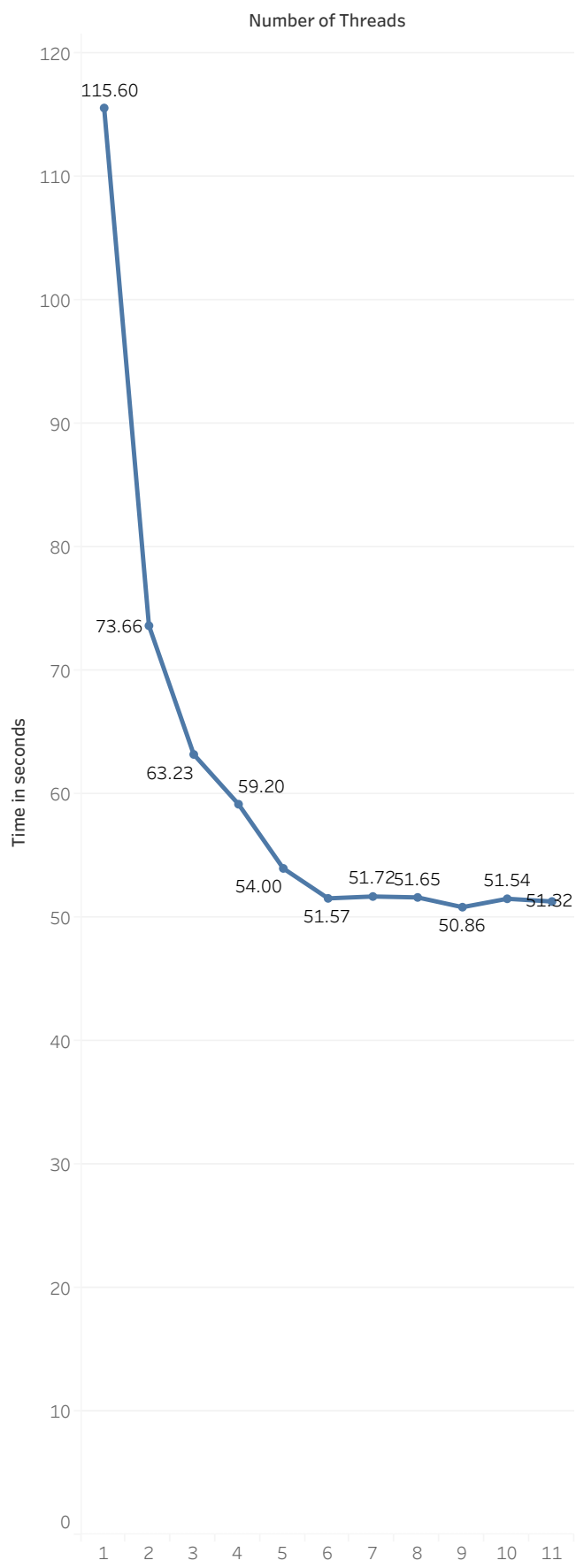## Number of Threads / Matrix Size

The trend of Time in seconds for Number of Threads and Matrix Size.
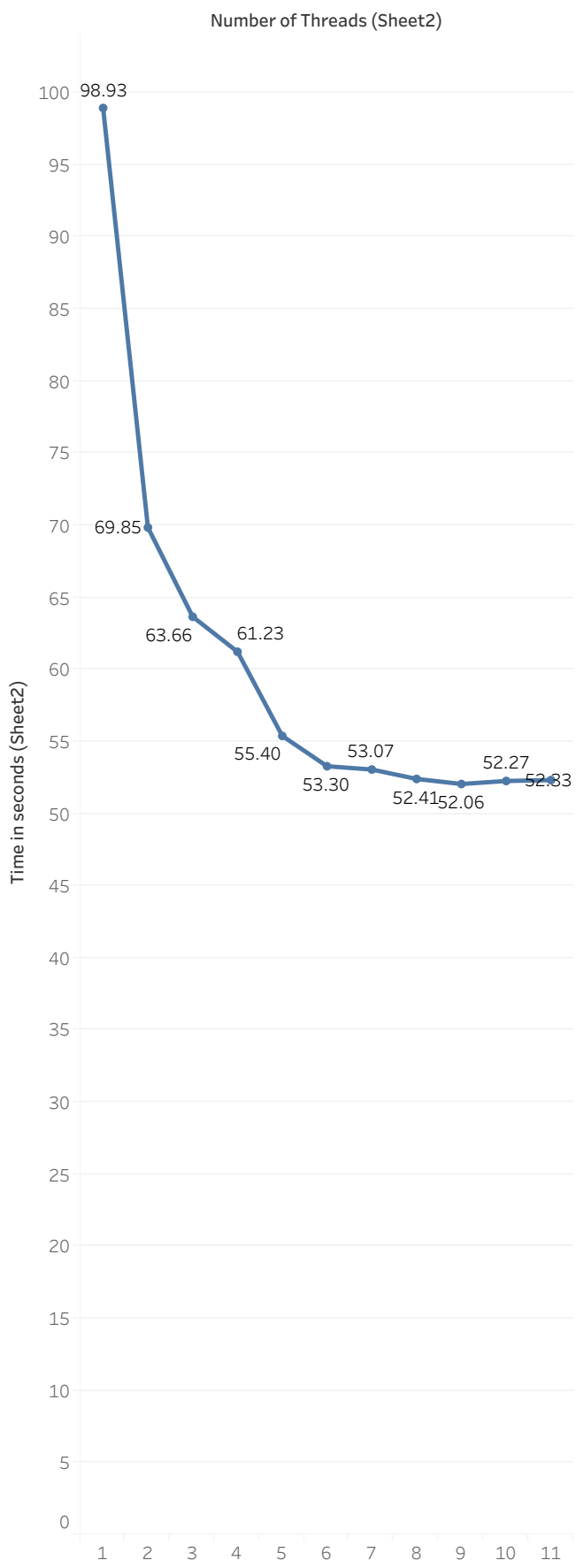
Pthreads Execution Time across Different Matrices

Number of Thre..

11

Time in seconds

350

300

250

200

150

100

50

0

1,500 2,000 2,500 3,000 3,500

The trend of Time in seconds for Number of Threads and Matrix Size.

OpenMP Execution Speed for a 3000x3000 Matrix

Number of Threads

Time in seconds

115.60
73.66
63.23
59.20
54.00
51.57
51.72 51.65
50.86
51.54
51.32

Pthreads Execution Speed for a 3000 x 3000 Matrix

Number of Threads (Sheet2)

Time in seconds (Sheet2)

98.93
69.85
63.66
61.23
55.40
53.30
53.07
52.41 52.06
52.27
52.33

OpenMP Speed-Up Factor for a 3000x3000 Matrix

Number of Threads

- 1.000
- 1.569
- 1.828
- 1.953
- 2.141
- 2.242
- 2.235
- 2.238
- 2.273
- 2.243
- 2.253

Pthreads Speed-Up Factor for a 3000 x 3000 Matrix

Number of Threads (Sheet2)

- 1.0000
- 1.4164
- 1.5540
- 1.6156
- 1.7859
- 1.8563
- 1.8643
- 1.8875
- 1.9002
- 1.8926
- 1.8904

OpenMP Implementation Effeciency

Number of Threads

- 1.0000
- 0.7847
- 0.6094
- 0.4882
- 0.4282
- 0.3736
- 0.3193
- 0.2798
- 0.2526
- 0.2243
- 0.2048

Pthreads Implementation Effeciency

Number of Threads (Sheet2)

- 1.0000
- 0.7082
- 0.5180
- 0.4039
- 0.3572
- 0.3094
- 0.2663
- 0.2359
- 0.2111
- 0.1893
- 0.1719

OpenMP Execution Time across Different Matrices

Number of Threads (Sheet1) / Matrix Size (Sheet1)

Pthreads Execution Time across Different Matrices

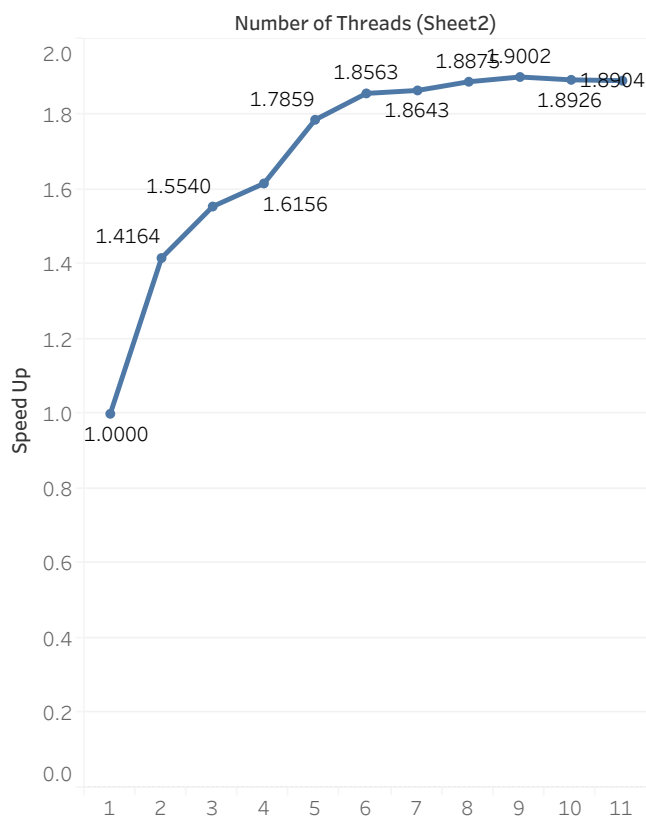
Number of Threads / Matrix Size