Homework #6

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Table1. Vary the number of mpi processes

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| N | Number of processes | Serial | Parallel | SpeedUp |
| 200 | 2 | 64502 | 1288976 | 0.050041273 |
| 200 | 3 | 64502 | 1200045 | 0.053749651 |
| 200 | 4 | 64502 | 1200336 | 0.053736620 |
| 200 | 5 | 64502 | 1189277 | 0.054236313 |

Table2. Increase N (generate a bigger matrix) and if required vary the number of mpi processes

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| N | Number of processes | Serial | Parallel | SpeedUp |
| 100 | 2 | 11571 | 1142976 | 0.010123572 |
| 200 | 5 | 64502 | 1189277 | 0.054236313 |
| 500 | 8 | 782635 | 1466340 | 0.533733649 |
| 1000 | 10 | 5578784 | 2646917 | 2.107653545 |
| 2000 | 8 | 44534642 | 16044958 | 2.775615991 |
| 5000 | 9 | 707748835 | 209470709 | 3.37874845785 |