Activity 1. [FACTOR 1: PROBLEM SIZE]

|  |  |
| --- | --- |
| n (103) | Time (ms) |
| 10 | 1550 |
| 20 | 6268 |
| 40 | 25528 |
| 80 | OoT |
| 160 | OoT |
| 320 | OoT |
| 640 | OoT |

Activity 2. [FACTOR 2: COMPUTER PERFORMANCE]

|  |  |  |
| --- | --- | --- |
| n(103) | Time 1 (ms) | Time 2 (ms) |
| 10 | 1550 | 1385 |
| 20 | 6268 | 5656 |
| 40 | 25528 | 22590 |
| 80 | OoT | OoT |
| 160 | OoT | OoT |
| 320 | OoT | OoT |
| 640 | OoT | OoT |

CPU 1 = 12th Gen Inter® Core™ i5-12400

RAM 1 = 16 GB

CPU 2 = 12th Gen Intel® Core™ i7-12700H

RAM 2 = 32 GB

Activity 3. [FACTOR 3: IMPLEMENTATION ENVIRONMENT]

|  |  |  |
| --- | --- | --- |
| n(103) | Python time (ms) | Java Time (ms) |
| 10 | 1550 | 39 |
| 20 | 6268 | 137 |
| 40 | 25528 | 505 |
| 80 | OoT | 1890 |
| 160 | OoT | 7108 |
| 320 | OoT | 26779 |
| 640 | OoT | OoT |

Activity 3. [FACTOR 3: IMPLEMENTATION ENVIRONMENT]

|  |  |  |
| --- | --- | --- |
| n (103) | PythonA1 (ms) | JavaA1 (ms) |
| 10 | 1588 | 82 |
| 20 | 6121 | 306 |
| 40 | 26220 | 1242 |
| 80 | OoT | 4728 |
| 160 | OoT | 19120 |
| 320 | OoT | OoT |
| 640 | OoT | OoT |

Activity 3. [FACTOR 3: ALGORITHM USED]

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| n(103) | PyA1(mS) | PyA2(mS) | PyA3(mS) | JaA1(mS) | JaA2(mS) | JaA3(mS) | JSA1(mS) | JSA2(mS) | JSA3(mS) |
| 10 | 1604 | 209 | 88 | 76 | 13 | 7 | 314 | 37 | 23 |
| 20 | 6531 | 743 | 331 | 297 | 38 | 16 | 1301 | 131 | 72 |
| 40 | 26207 | 2512 | 1255 | 1154 | 121 | 61 | 5035 | 486 | 262 |
| 80 | OoT | 9567 | 4755 | 4656 | 47 | 213 | 19627 | 1817 | 951 |
| 160 | OoT | 35929 | 18005 | 18013 | 1601 | 769 | 77864 | 6781 | 3528 |
| 320 | OoT | OoT | OoT | OoT | 5836 | 2932 | OoT | 25650 | 13322 |
| 640 | OoT | OoT | OoT | OoT | 22208 | 11025 | OoT | OoT | 50005 |

JS is java without optimization