**SUMMARY**

## USC ID/s:

## Datapoints

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| M+N | Time in MS (Basic) | Time in MS (Efficient) | Memory in KB (Basic) | Memory in KB (Efficient) |
| 16 | 0.08606910705566406 | 0.17571449279785156 | 4.0 | 16.0 |
| 64 | 0.9081363677978516 | 1.6968250274658203 | 52.0 | 16.0 |
| 128 | 3.103971481323242 | 6.381750106811523 | 180.0 | 32.0 |
| 256 | 14.374256134033203 | 22.66097068786621 | 444.0 | 56.0 |
| 384 | 32.11498260498047 | 46.769142150878906 | 544.0 | 60.0 |
| 512 | 53.36499214172363 | 82.08799362182617 | 968.0 | 96.0 |
| 768 | 109.10582542419434 | 189.6498203277588 | 1496.0 | 128.0 |
| 1024 | 213.6709690093994 | 330.3220272064209 | 2808.0 | 204.0 |
| 1280 | 318.1607723236084 | 599.0910530090332 | 4128.0 | 272.0 |
| 1536 | 501.6438961029053 | 879.0388107299805 | 5484.0 | 504.0 |
| 2048 | 833.0717086791992 | 1466.0110473632812 | 9252.0 | 268.0 |
| 2560 | 1361.9341850280762 | 2076.676845550537 | 14088.0 | 508.0 |
| 3072 | 1897.6280689239502 | 2913.57421875 | 19724.0 | 656.0 |
| 3584 | 2613.9578819274902 | 4059.114933013916 | 26728.0 | 672.0 |
| 3968 | 3552.316188812256 | 5031.074047088623 | 32668.0 | 824.0 |

## Insights

### Graph1 – Memory vs Problem Size (M+N)

[Add Graph1 here]

#### Nature of the Graph (Logarithmic/ Linear/ Polynomial/ Exponential)

Basic:

Efficient:

#### Explanation:

### Graph2 – Time vs Problem Size (M+N)

[Add Graph2 here]

#### Nature of the Graph (Logarithmic/ Linear/ Polynomial/ Exponential)

Basic:

Efficient:

#### Explanation:

## Contribution

(Please mention what each member did if you think everyone in the group does not have an equal contribution, otherwise, write “Equal Contribution”)

<USC ID/s>: <Equal Contribution>