**SUMMARY**

## USC ID/s:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| M+N | Time in MS (Basic) | Time in MS (Efficient) | Memory in KB (Basic) | Memory in KB (Efficient) |
| 16 | 0.04839897155761719 | 0.05125999450683594 | 68684.0 | 68732.0 |
| 64 | 0.331878662109375 | 0.32520294189453125 | 68688.0 | 68684.0 |
| 128 | 1.1754035949707031 | 1.24359130859375 | 68684.0 | 68940.0 |
| 256 | 2.9268264770507812 | 3.891468048095703 | 69068.0 | 68688.0 |
| 384 | 10.083675384521484 | 8.67152214050293 | 69280.0 | 69072.0 |
| 512 | 17.397642135620117 | 16.905784606933594 | 70300.0 | 68660.0 |
| 768 | 32.00173377990723 | 39.222002029418945 | 70524.0 | 69068.0 |
| 1024 | 76.13539695739746 | 67.3685073852539 | 70532.0 | 68940.0 |
| 1280 | 92.27800369262695 | 119.52924728393555 | 73124.0 | 68944.0 |
| 1536 | 149.38092231750488 | 145.98488807678223 | 74804.0 | 69452.0 |
| 2048 | 307.5244426727295 | 270.45273780822754 | 75088.0 | 69172.0 |
| 2560 | 527.1294116973877 | 435.0597858428955 | 78120.0 | 69452.0 |
| 3072 | 655.2813053131104 | 582.8487873077393 | 82304.0 | 70348.0 |
| 3584 | 741.1599159240723 | 852.7965545654297 | 83660.0 | 69200.0 |
| 3968 | 1150.7792472839355 | 1008.0962181091309 | 92272.0 | 69712.0 |

## Datapoints

## 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>