Sequential Search (unsorted)

|  |  |  |  |
| --- | --- | --- | --- |
| Trial | Time (ns) | Matches | Sum |
| 1 | 4819600 | 1000 | 5553964 |
| 2 | 4972800 | 1000 | 5529361 |
| 3 | 4711800 | 1000 | 5487064 |
| 4 | 4743200 | 1000 | 5557547 |
| 5 | 4703000 | 1000 | 5611199 |
| 6 | 5488600 | 1000 | 5453386 |
| 7 | 4746900 | 1000 | 5613944 |

Array Sorting

|  |  |  |  |
| --- | --- | --- | --- |
| Trial | Time (ns) | Swaps | Comparisons |
| 1 | 3637000 | 1000 | 499500 |
| 2 | 3676600 | 1000 | 499500 |
| 3 | 4169700 | 1000 | 499500 |
| 4 | 4077400 | 1000 | 499500 |
| 5 | 3799700 | 1000 | 499500 |
| 6 | 3602500 | 1000 | 499500 |
| 7 | 3705800 | 1000 | 499500 |

Sequential Search

|  |  |  |  |
| --- | --- | --- | --- |
| Trial | Time (ns) | Matches | Sum |
| 1 | 5445000 | 1000 | 5553964 |
| 2 | 5271700 | 1000 | 5529361 |
| 3 | 5714300 | 1000 | 5487064 |
| 4 | 5667500 | 1000 | 5557547 |
| 5 | 5406400 | 1000 | 5611199 |
| 6 | 5140000 | 1000 | 5453386 |
| 7 | 5328400 | 1000 | 5613944 |

Binary (nonrecursive) Search

|  |  |  |  |
| --- | --- | --- | --- |
| Trial | Time (ns) | Matches | Sum |
| 1 | 1055700 | 1000 | 5553964 |
| 2 | 1073200 | 1000 | 5529361 |
| 3 | 1037400 | 1000 | 5487064 |
| 4 | 1067100 | 1000 | 5557547 |
| 5 | 1041800 | 1000 | 5611199 |
| 6 | 985600 | 1000 | 5453386 |
| 7 | 1090500 | 1000 | 5613944 |

Binary (recursive) Search

|  |  |  |  |
| --- | --- | --- | --- |
| Trial | Time (ns) | Matches | Sum |
| 1 | 1201700 | 1000 | 5553964 |
| 2 | 1277800 | 1000 | 5529361 |
| 3 | 1175600 | 1000 | 5487064 |
| 4 | 1131300 | 1000 | 5557547 |
| 5 | 1234200 | 1000 | 5611199 |
| 6 | 1345000 | 1000 | 5453386 |
| 7 | 1166300 | 1000 | 5613944 |

# Sort Results

|  |  |  |
| --- | --- | --- |
| Sort Type | Swaps | Comparisons |
| Selection | 49 | 1225 |
| Bubble | 601 | 1225 |
| Better Bubble | 601 | 1139 |
| Insertion | 601 | 601 |
|  |  |  |