|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Sorting Algorithm** | **Case** | **Reading** | **10,000** | **Avg** | **100,000** | **Avg** | **1,000,000** | **Avg** |
| **Linear Search**  **Best case A: searching the smallest number(1)**  **Worst case B:**  **The largest number** | A | 1 | 2.7e-05 | 1.03e-05  0.000261 | 2.4999e-05 | 9.3333e-06  0.00184 | 5.4e-05 | 1.9333e-05  0.014783 |
| A | 2 | 3.0e-06 | 2.000e-06 | 3.000e-06 |
| A | 3 | 10e-07 | 1.000e-06 | 1.00e-06 |
| B | 1 | 0.0003 | 0.001928 | 0.01692 |
| B | 2 | 0.00025 | 0.00177 | 0.013991 |
| B | 3 | 0.00025 | 0.001815 | 0.013432 |
| **Binary Search** | A | 1 |  |  |  |  |  |  |
| A | 2 |  |  |  |
| A | 3 |  |  |  |
| B | 1 |  |  |  |  |  |  |
| B | 2 |  |  |  |
| B | 3 |  |  |  |
| **Order Statistics => in the Main.py Code** | A | 1 |  |  |  |  |  |  |
| A | 2 |  |  |  |
| A | 3 |  |  |  |
| B | 1 |  |  |  |  |  |  |
| B | 2 |  |  |  |
| B | 3 |  |  |  |

**Note:** It is expected that in some cases the sorting can take significantly long (in range of hours).