|  |  |  |
| --- | --- | --- |
| **Algorithm** | **Number of elements in the array** | **Time of algorithm execution, sec** |
| *Counting sort* | 50 000 | 0.004 |
|  | 100 000 | 0.005 |
|  | 150 000 | 0.007 |
|  | 200 000 | 0.008 |
|  | 250 000 | 0.009 |
|  | 300 000 | 0.01 |
|  | 350 000 | 0.011 |
|  | 400 000 | 0.012 |
|  | 450 000 | 0.013 |
|  | 500 000 | 0.014 |
|  | 550 000 | 0.015 |
|  | 600 000 | 0.017 |
|  | 650 000 | 0.02 |
|  | 700 000 | 0.021 |
|  | 750 000 | 0.021 |
|  | 800 000 | 0.022 |
|  | 850 000 | 0.024 |
|  | 900 000 | 0.025 |
|  | 950 000 | 0.026 |
|  | 1000 000 | 0.027 |
| *Selection Sort* | 50 000 | 0.5 |
|  | 100 000 | 1.8 |
|  | 150 000 | 4.6 |
|  | 200 000 | 7.7 |
|  | 250 000 | 8.7 |
|  | 300 000 | 12.5 |
|  | 350 000 | 16.5 |
|  | 400 000 | 21.5 |
|  | 450 000 | 28 |
|  | 500 000 | 33 |
|  | 550 000 | 41 |
|  | 600 000 | 49 |
|  | 650 000 | 58 |
|  | 700 000 | 71 |
|  | 750 000 | 91 |
|  | 800 000 | 108 |
|  | 850 000 | 105 |
|  | 900 000 | 202 |
|  | 950 000 | 214 |
|  | 1000 000 | 204 |
| *Merge Sort* | 50 000 | 0.011 |
|  | 100 000 | 0.008 |
|  | 150 000 | 0.013 |
|  | 200 000 | 0.013 |
|  | 250 000 | 0.015 |
|  | 300 000 | 0.024 |
|  | 350 000 | 0.019 |
|  | 400 000 | 0.023 |
|  | 450 000 | 0.025 |
|  | 500 000 | 0.033 |
|  | 550 000 | 0.032 |
|  | 600 000 | 0.035 |
|  | 650 000 | 0.049 |
|  | 700 000 | 0.051 |
|  | 750 000 | 0.039 |
|  | 800 000 | 0.047 |
|  | 850 000 | 0.041 |
|  | 900 000 | 0.049 |
|  | 950 000 | 0.065 |
|  | 1000 000 | 0.053 |

**Kate Slesarchik, PM-181.**