Merge Sort analysis:

Data Table:

| Number of Elements | Required Time(in microseconds) |
|--------------------|--------------------------------|
| 2000 | 1996 |
| 3000 | 2027 |
| 4000 | 2989 |
| 5000 | 3956 |
| 6000 | 6978 |

Graph (Number of elements vs required time):

