|  |  |  |  |
| --- | --- | --- | --- |
| n | Count/n | Count/(n^2) | Count/(nlogn) |
| 10(count=68) | 6.8 | 0.68 | 6.8 |
| 100(count=1344) | 13.44 | 0.1344 | 6.72 |
| 500(count=8976) | 17.952 | 0.036 | 6.65 |
| 1000(count=19952) | 19.952 | 0.019952 | 6.65 |

Merge Sort: Efficiency= O(nlogn)

Quick Sort: Efficiency= Average case: O(nlogn)

Worst Case:O(n^2)

|  |  |  |  |
| --- | --- | --- | --- |
| n | Count/n | Count/(n^2) | Count/(nlogn) |
| 10(count=124) | 12.4 | 1.24 | 12.4 |
| 100(count=2402) | 24.02 | 0.2402 | 12.01 |
| 500(count=18396) | 36.72 | 0.0735 | 13.63 |
| 1000(count=43401) | 43.401 | 0.043401 | 14.46 |

Bubble Sort: Efficiency= Average case: O(n^2)

|  |  |  |  |
| --- | --- | --- | --- |
| n | Count/n | Count/(n^2) | Count/(nlogn) |
| 10(count=303) | 30.3 | 3.03 | 30.3 |
| 100(count=28005) | 280.05 | 2.8005 | 140.025 |
| 500(count=692083) | 1384.166 | 2.76 | 512.84 |
| 1000(count=2708325) | 2708.325 | 2.708 | 902.775 |

Selection Sort: Efficiency= Average case: O(n^2)

|  |  |  |  |
| --- | --- | --- | --- |
| n | Count/n | Count/(n^2) | Count/(nlogn) |
| 10(count=137) | 13.7 | 1.37 | 13.7 |
| 100(count=10397) | 103.97 | 1.0397 | 51.985 |
| 500(count=251997) | 503.994 | 1.007 | 186.73 |
| 1000(count=1003997) | 1003.997 | 1.003 | 334.665 |