**Kyle Miller -- Big-O Analysis for CS310 End of Year Project**

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| --- | --- | --- | --- |
|  | **Best Case** | **Average Case** | **Worst Case** |
| Reduces to | O(n log (n)) | O(n log (n)) | O(n^2) |
| Total | 6n^2 + 7n + n log(n) | 6n^2 + 5n + n log(n) | 8n^2 + 5n |
| **Method 1:** sortingFunction() | n | n | n |
| NESTED FOR LOOP: | n^2 | n^2 | n^2 |
| selectionSort: | n^2 | n^2 | n^2 |
| addResultsToArray: | n | n | n |
| verifyOrder | n | n | n |
| insertionSort: | n | n^2 | n^2 |
| addResultsToArray: | n | n | n |
| verifyOrder | n | n | n |
| quicksort: | n log(n) | n log(n) | n^2 |
| addResultsToArray: | n | n | n |
| verifyOrder | n | n | n |
| **Method2:** createReport() | n | n | n |
| printReport: | n | n | n |