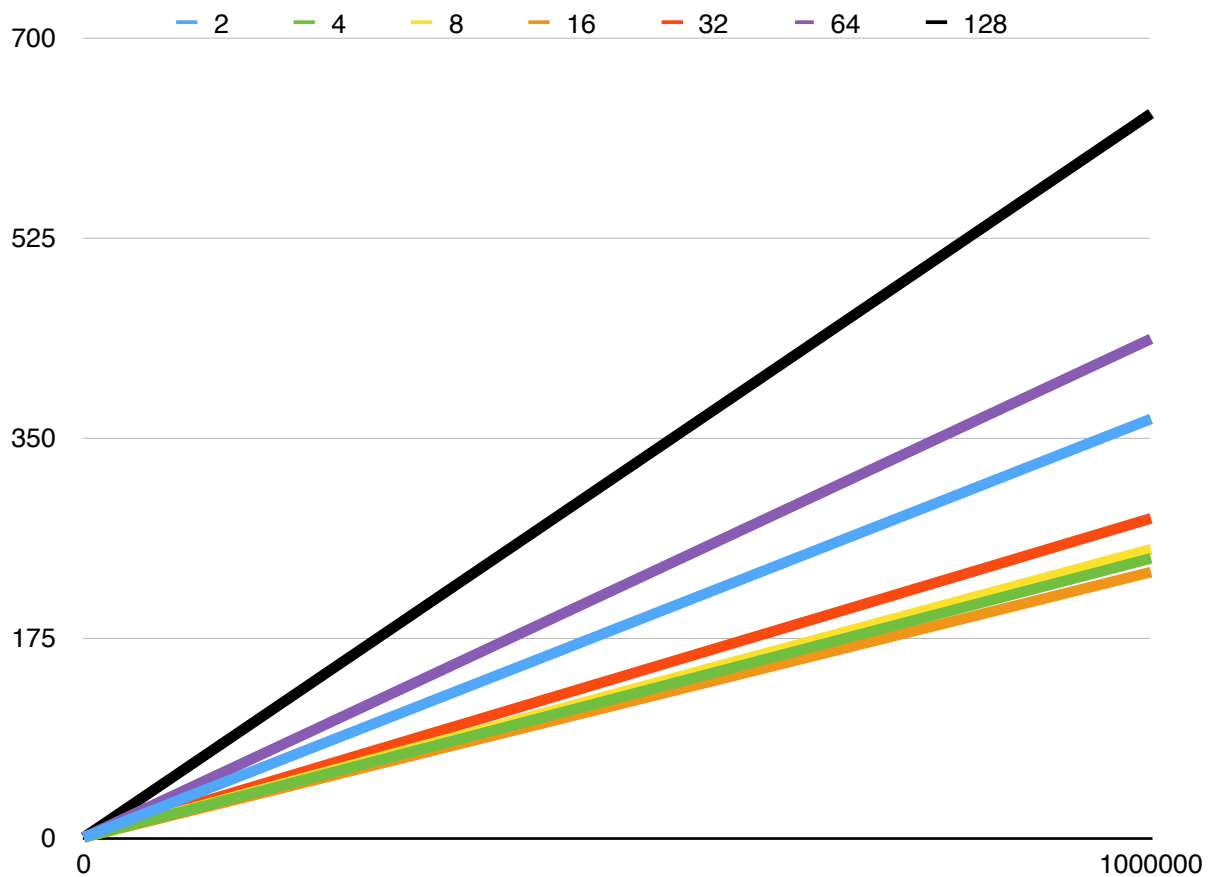
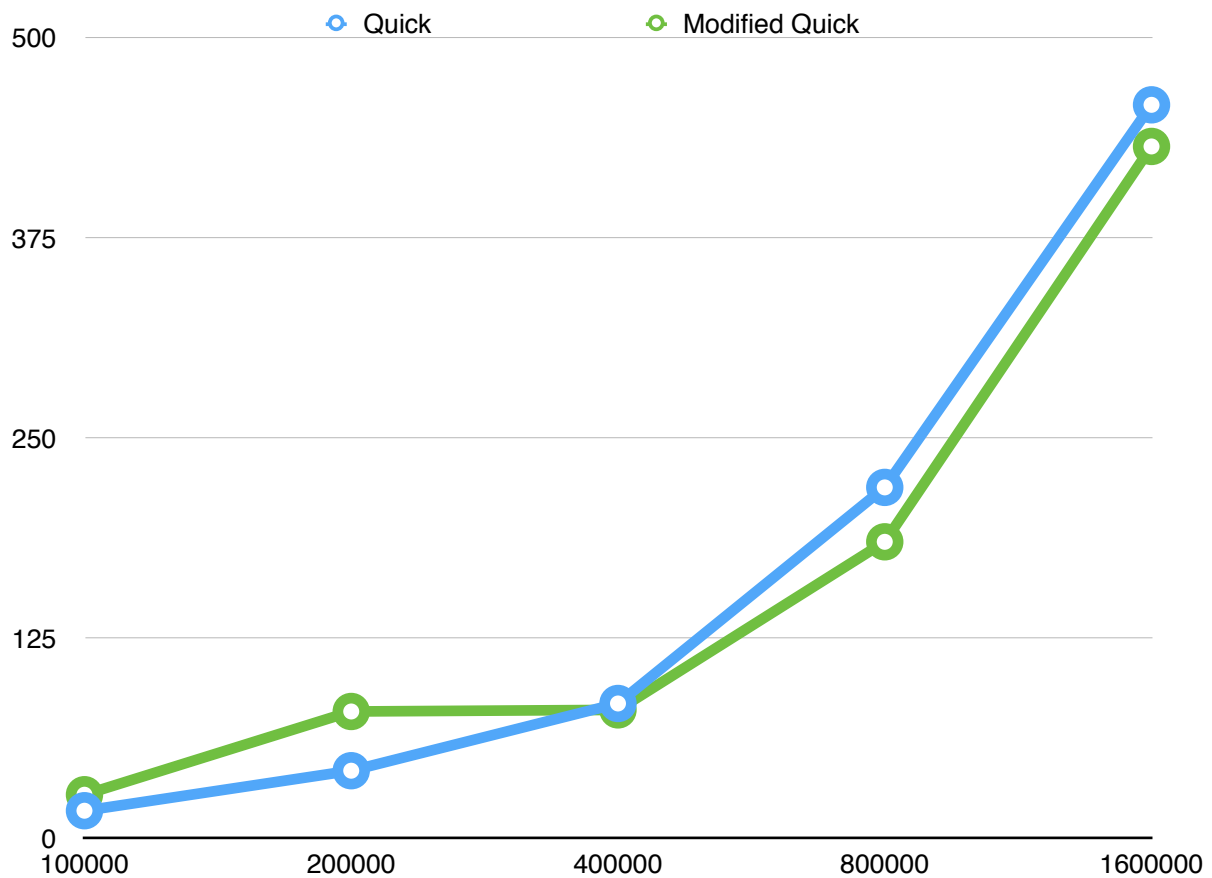


Insertion sort was exponentially slower than merge or quick sort, with the runtimes of the latter two sorts being unnoticeable.



The parameter of 16 seemed to be the perfect value, balancing between without having the need of utilising insertion sort that much (Insertion sort being $O(n^2)$) and using insertion sort too late

(when subarrays are too small for there to be a noticeable difference). The more the cutoff seemed to be in between the two extremes 2 and 128, the faster the runtime seemed to be



Although quick sort was faster than the modified quick sort with smaller sets of data, when the number of data increases, the modified quick sort seemed to outperform the normal quick sort. This should be predictable since the insertion sort helps decrease the need to split large amount of arrays into smaller arrays (prevents need to branch that much).