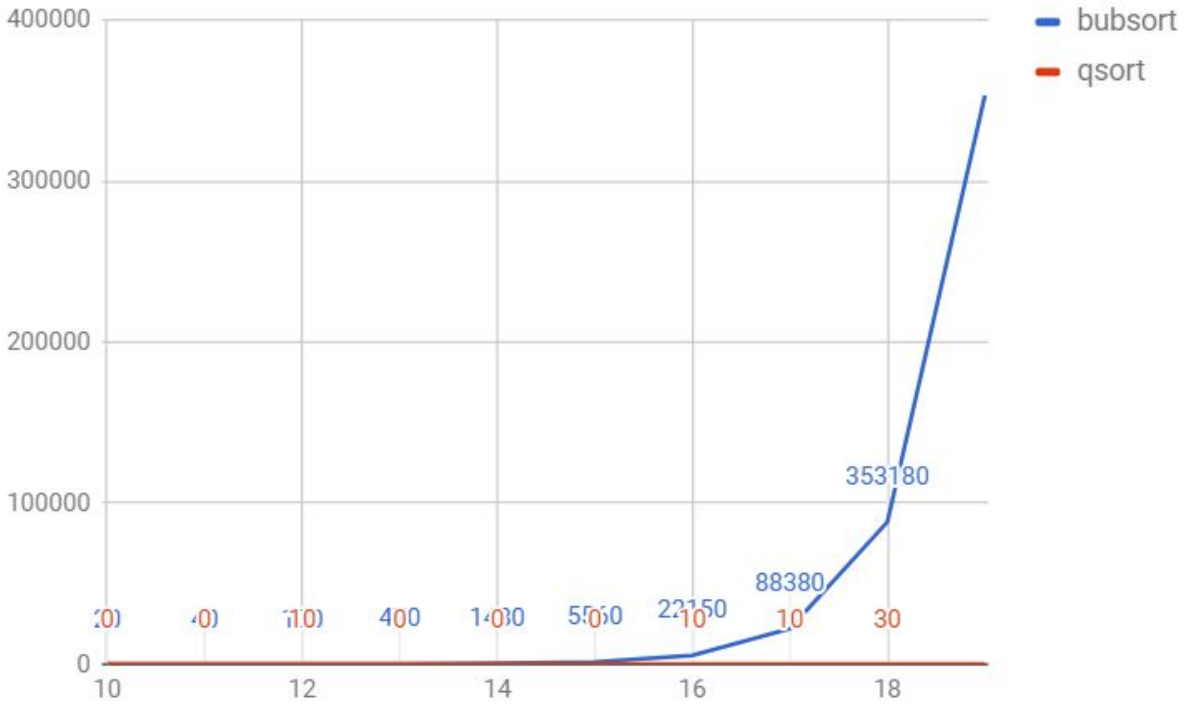
n	bubsort	qsort
10	0	0
11	20	0
12	40	0
13	130	10
14	470	0
15	1430	0
16	5560	0
17	22150	10
18	88380	10
19	353180	30



Bubble sort works on O(n^2) since when you double N, it takes 4x long to finish

The C implementation of Qsort worked on O(n) on my own machine.. When I doubled the size of the array to be sorted it took twice as long. However on Euler the scheduler ran the algorithm very quickly. I ran problem1b.exe a few times on the Euler GPU cluster and got the following data points to show that qsort was order N:

2^N	Time (ms)
100e5	30
200e5	60
300e5	80

When N doubled the time it took doubled as well. I do not know why calling the function repeatedly in a loop made the execution so much faster. I would guess that the compiler is smarter than I am in this case and is performing some optimizations in qsort.