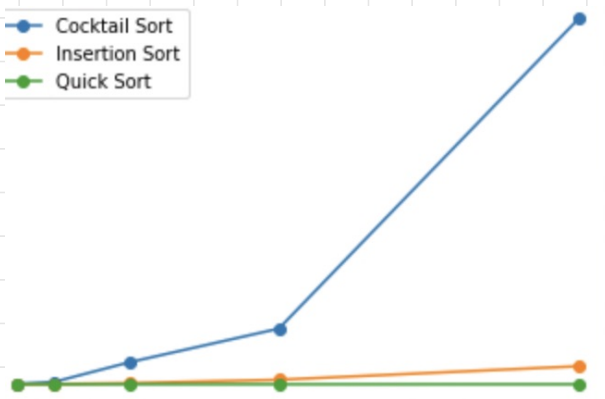


1. Insertion Sort vs. Quicksort vs. Cocktail Sort

table:

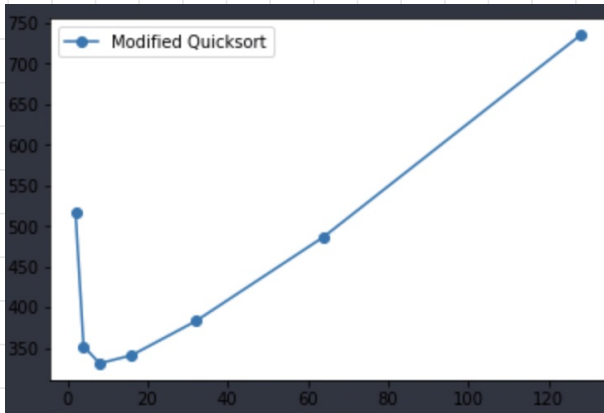
	Cocktail Sort	Insertion Sort	Quick Sort
10000	567	130	2
20000	2793	325	2
40000	26950	1383	5
80000	68605	5552	11
160000	450730	22244	24



Notes

- Insertion / Quick Sort Seems to overlap
- Avg Time Complexity appears to be $\Theta(n)$ for Insertion/Quick
• $\Theta(n^2)$ for Cocktail sort

2 Testing Modified Quick sort

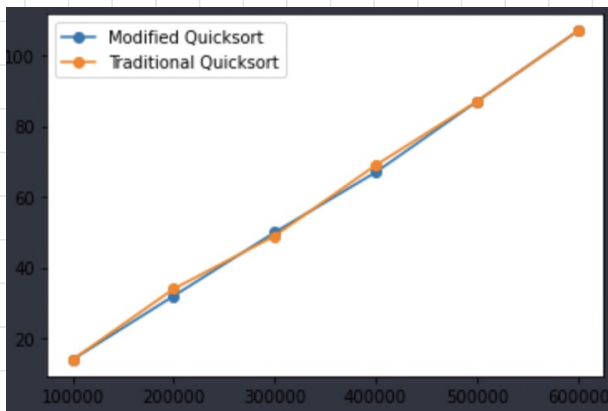


Given that each data point represents a cutoff,

the best value is 8

3) Traditional QS vs Modified QS

	Modified Quicksort	Traditional Quicksort
Data Sizes		
100000	14	14
200000	32	34
300000	50	49
400000	67	69
500000	87	87
600000	107	107



It appears that these sorts are overlapping, almost completely in some sections

