

To test the time for the remote request and local execution I used the `gettimeofday()` function to time the amount of time it takes to execute the generate data function on the `client.cpp` file. From the times I got of requesting remotely versus timing the function when it is used locally, we can see that it takes significantly longer to generate data using a separate process. The overhead was calculated by taking the difference between the remote request time and the local function time.

On the average remote time for the data point measured was 35685 microseconds and the average time it took using the function locally was 30.5 microseconds. Therefore the average overhead is roughly 35635 microseconds which is a significant amount of time. For each value of *i*, the time it takes increases with a linear trend as seen in the graphs below the table.

Table of Times:

i-values	Remote time(microseconds)	Local Time (microSeconds)	Overhead
5	6192	14	6178
10	3697	12	3685
15	7536	16	7520
20	15483	21	15462
25	15202	22	15180
30	17409	23	17386
35	26551	27	26524
40	23116	27	23089
45	30167	29	30138
50	3277	33	32728
55	40582	32	40550

60	36899	32	36867
65	44817	34	44783
70	40126	36	40090
75	61491	38	61453
80	61578	39	61539
85	53830	42	53788
90	56137	43	56094
95	65656	44	65612
100	74453	46	74407

