



| N | time (ms) |
|----|--------------|
| 1 | 24.101 |
| 2 | 12.065 |
| 3 | 8.403 |
| 4 | 7.296 |
| 5 | 6.218 |
| 6 | 5.308 |
| 7 | 4.669 |
| 8 | 4.336 |
| 9 | 4.102 |
| 10 | 4.448 |
| 12 | 3.776 |
| 14 | 3.429 |
| 16 | 3.004 |
| 18 | 3.572 |
| 20 | 4.328 |

Adding the first couple of threads to my solution helped a lot. Going from 1 to 2 threads halved the execution time. Going from 1 to 3 threads cut the exe time into 3. After N=4 the time is no longer cut into quarters and adding additional threads stops benefiting the execution. The best timing I could get was with 12 threads the total time was 3ms compared to 24ms using 1 thread, which is not too bad. I could probably improve my code by utilizing the cache better. I used separate variables to keep track of how many times each number appeared (num0 - num6), which might not have been the most efficient way of doing it, but openMP would not let me use the reduction clause on an array.