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## Test plan - ASST2

Notes: To run project please type:

> make all

> make MP (or) make MT

You can also change search value in the multitest.h file at:

```
#define SEARCH_VALUE <value>
```

You can change the number of runs right above main() at:

```
#define MAX_RUNS <value>
```

For this project we implemented Multithreading and Multiprocessing searches of arrays of different sizes, as well as different sections. To answer our questions we did 8 tests that are divided into two main ideas.

First set of tests we checked Multithreading vs Multiprocessing while testing on different array sizes but changing the section size, which changes the number of total processes/threads.

Second set of tests we used the same section size, which means all tests have the same number of processes/threads, but we changed the size of the array.

Here is a summary of all tests:

Test	Array size / Section size
0	{500, 250}
1	{1000, 250}
2	{5000, 250}
3	{15000, 250}
4	{25000, 250}
5	{25000, 50}
6	{25000, 100}
7	{25000, 200}

The idea is to test what is more efficient in terms of the amount of processes to search the same value in the same array.

Then to test how well the same number of processes/threads will work on different array sizes.