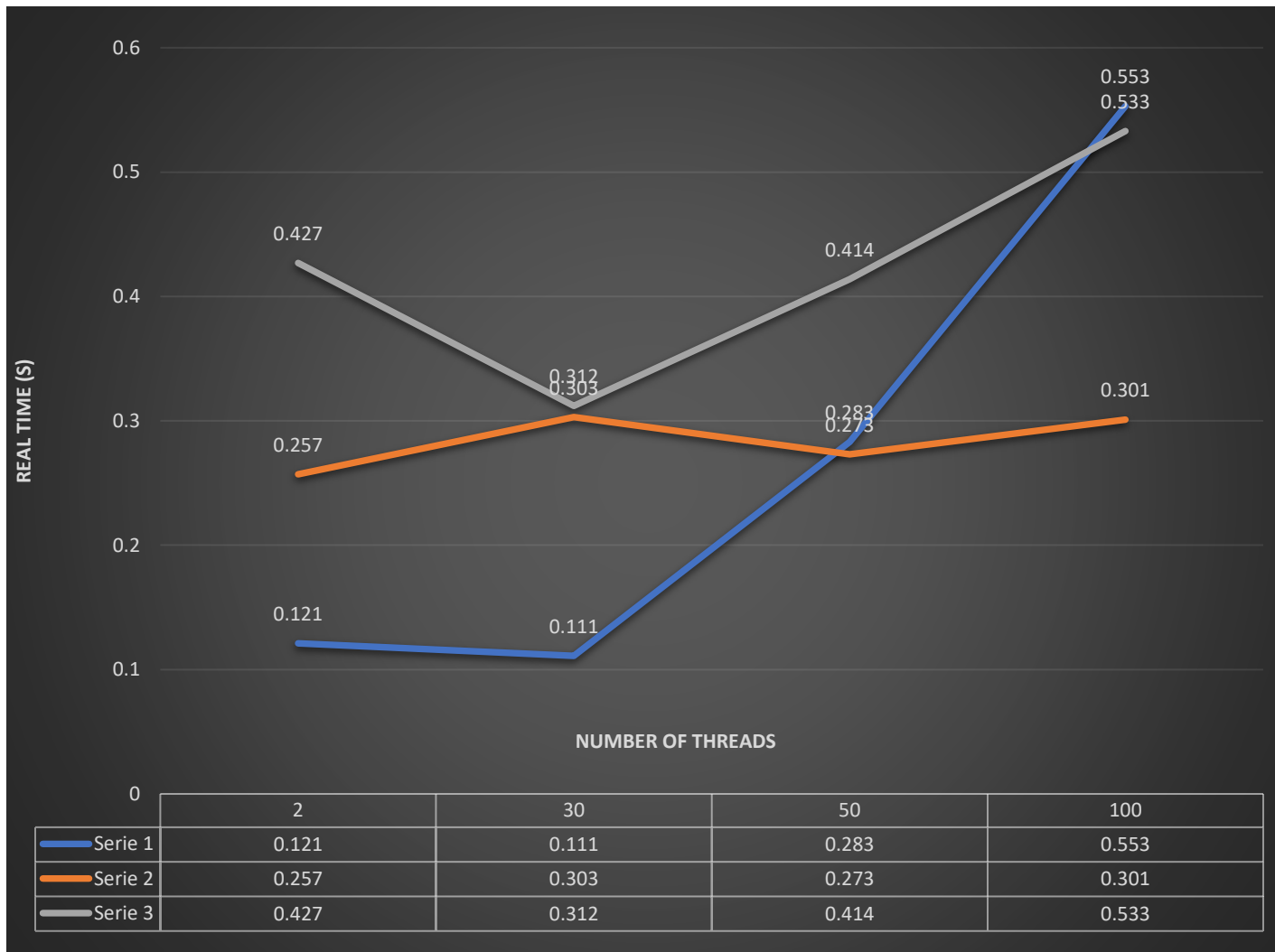


Homework 05 Graph



Notes: Time is based on running the *time* command in linux while running the code. As the test are running in an Oracle's Virtual Machine, real time will be the only one considered in this measurement. The number of threads and total points is configured directly from the code, that means that a *nano* or *vim* may be used each time those values will need to be changed since there is no implementation of direct arguments as parameters in this program.

Serie 1: 100, 000 total points were generated with n number of threads.

Serie 2: 300, 000 total points were generated with n number of threads.

Serie 3: 500, 000 total points were generated with n number of threads.

Some important facts about the behavior of such program are:

- As more threads are implemented, the value of Pi returned by such code gets closer to the real value of Pi.
- The same applies for the number of total points.
- However, if both numbers increase by much, the value returned may differ by quite an extend (Pi from the program being bigger than 3.1416).
- This means that both the number of threads and the number of points need to be balanced between them in order to get a value with better precision.
- During test period, the closest value to 3.1416 was 3.14035, which was during the test of 300, 000 with 2 threads.