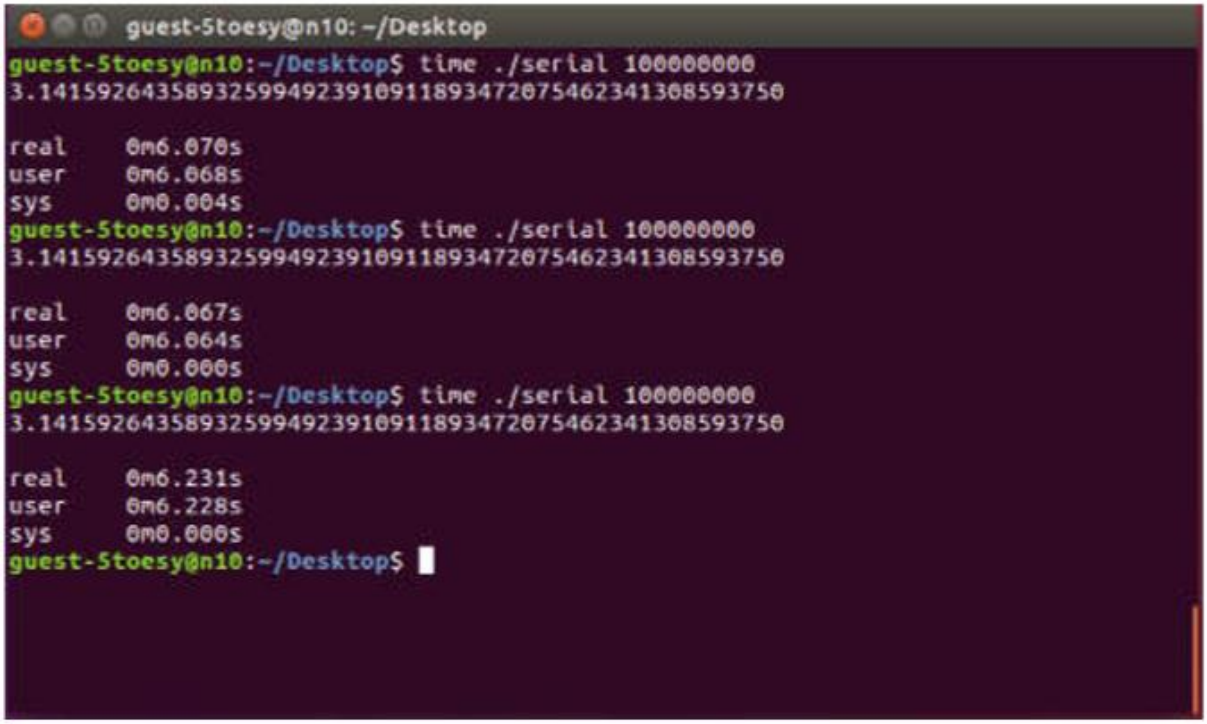
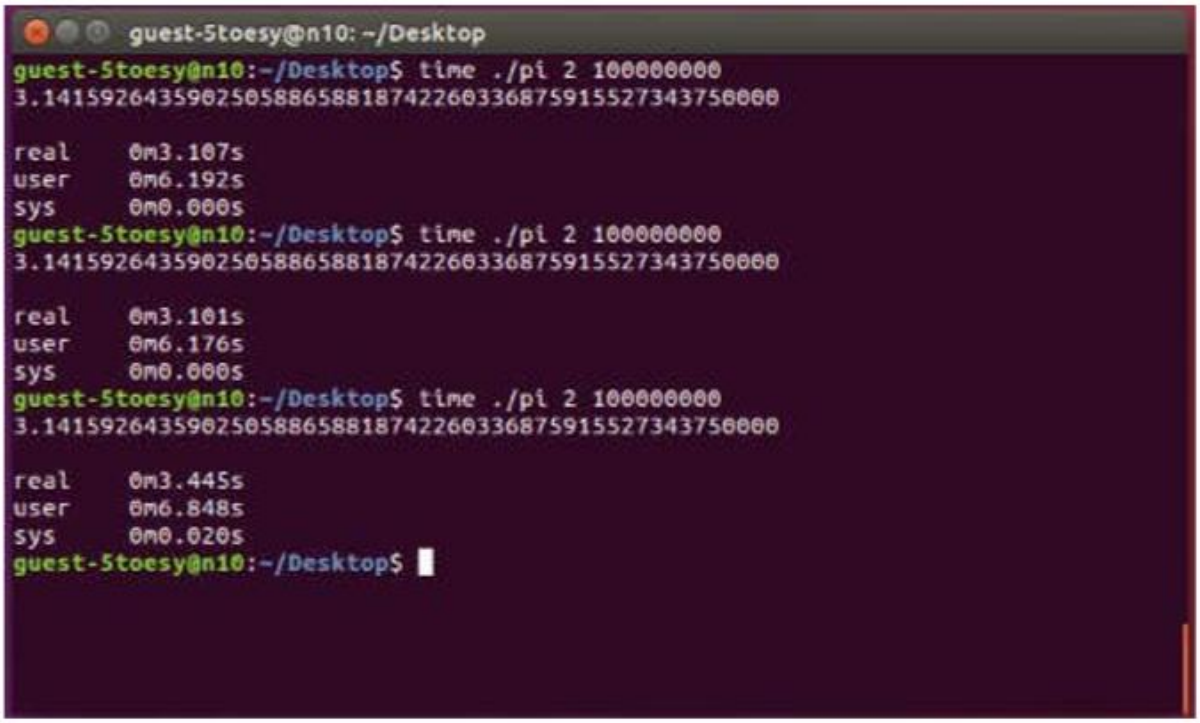
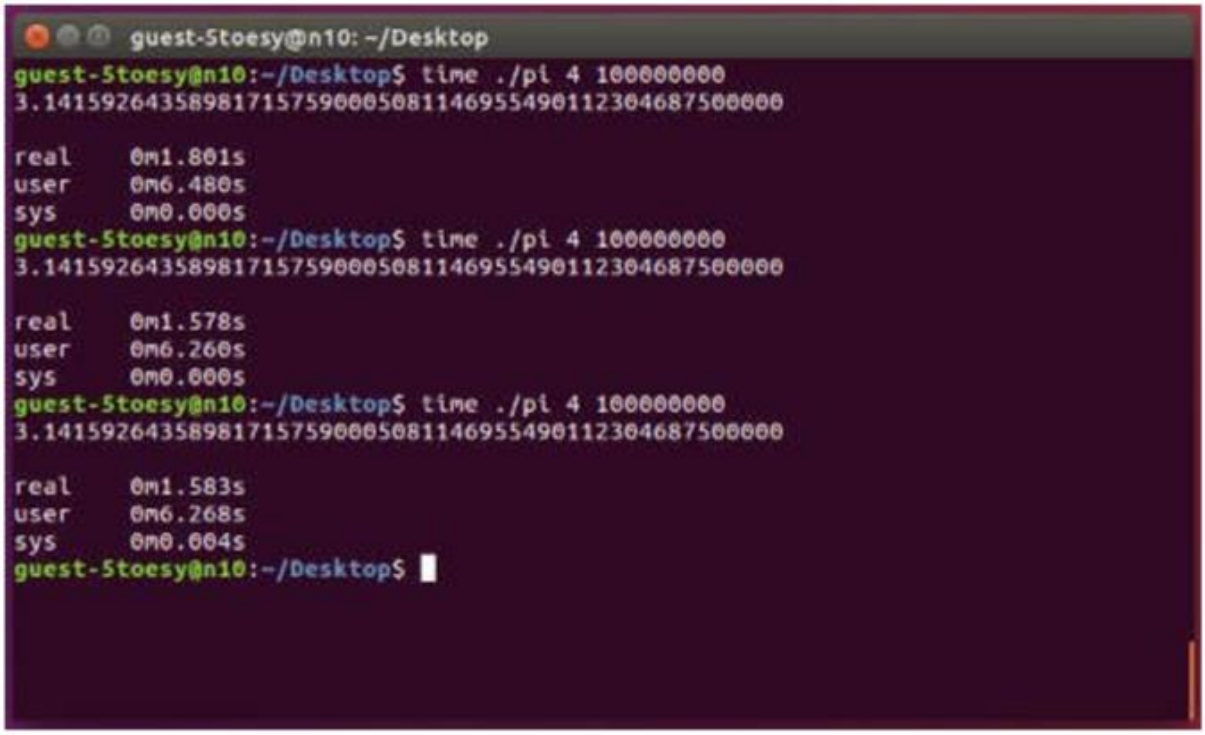
Test the serial and parallel programs

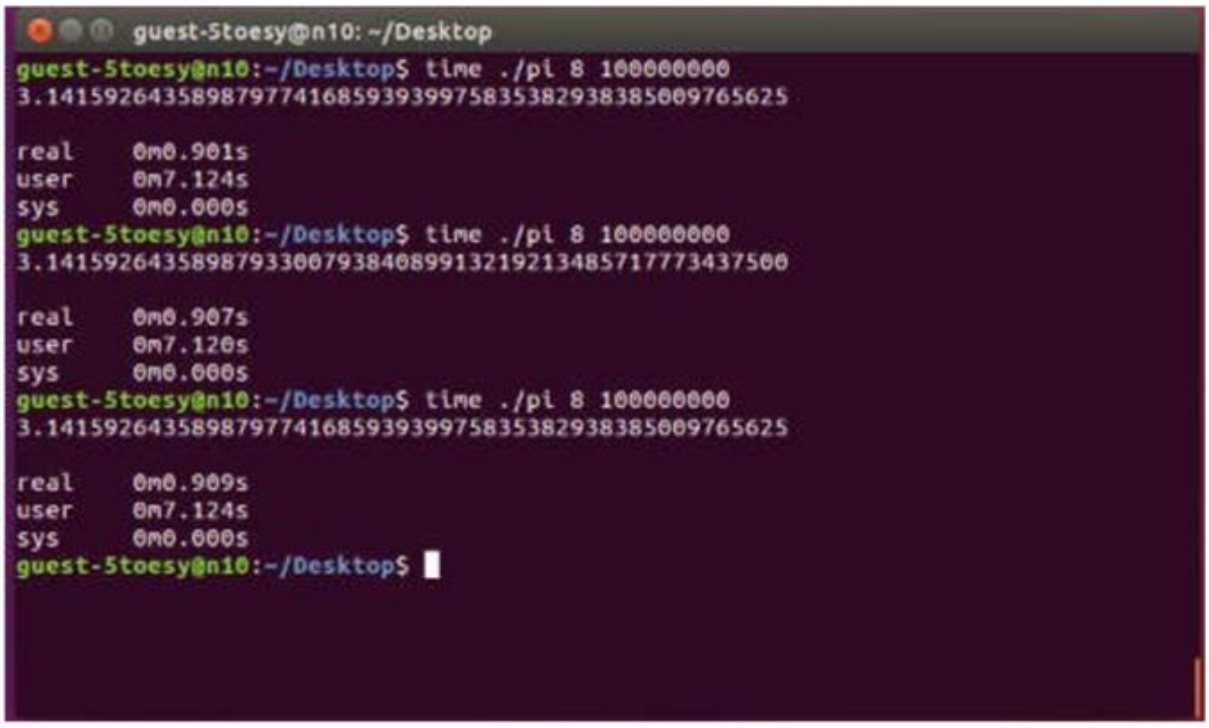
In our test laboratory the computer had 8 core processor and ubuntu 16.04 OS. According to these specifications the number of threads can be maximum 8 but we tried serial computation first, then parallel computation increased exponentially starting from 21. We used time utilities to check execution time.



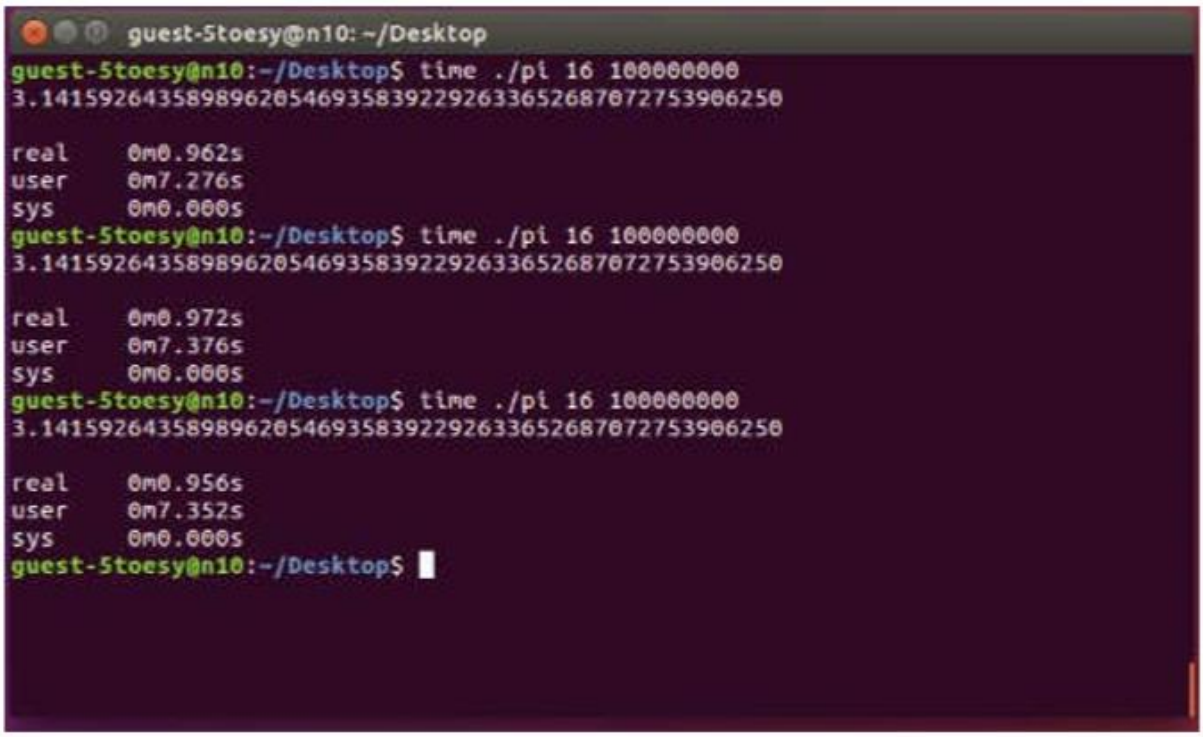


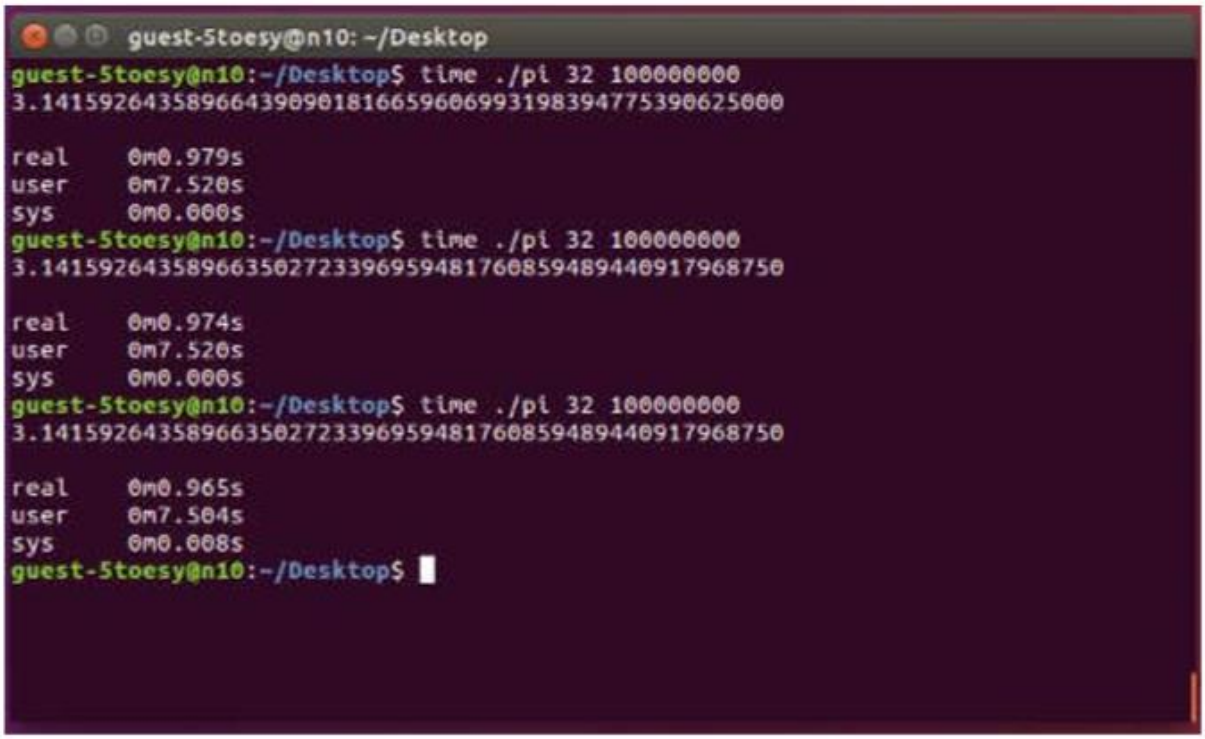
We can see clearly the real time of execution decreased to half. It means that parallel computation with 2 threads x2 faster.





Parallel computation with 4 threads x4 faster and with 8 threads x8 faster.





As you can see above, more than 8 threads don't effect the real time of execution because our test computer has 8 cores. That means time will decreased until 8 threads. So the computer can execute 8 threads at the same time.