Assignment 1

Description:

Program takes an input that contain random numbers and by multi-threading checks if the numbers are Prime or Even.

Compilation:

Program uses the math.h library and the pthread.h library so the linker of the compiler (gcc) needs specific arguments to compile.
- -lpthread for pthread.h
- -lm for math.h

Run make command in terminal to make executable file.
- First: compiles separately the file
  → primes.c that uses "pthread" and "math" library
- Creates a file "primes.o" which is primes.c
- Creates an executable file "primes"

Test Cases:

To test the program we are using the following files :

Random Numbers:
- random_50.txt
- random_100.txt

Only Prime Numbers:
- hi_200.txt
- low_200.txt
- low_1000.txt

Execution:

The executable file takes as Arguments the number of Threads that should be used and the Test File we are checking.

So the command to execute the program is :

./primes <number_of_threads> <test_file