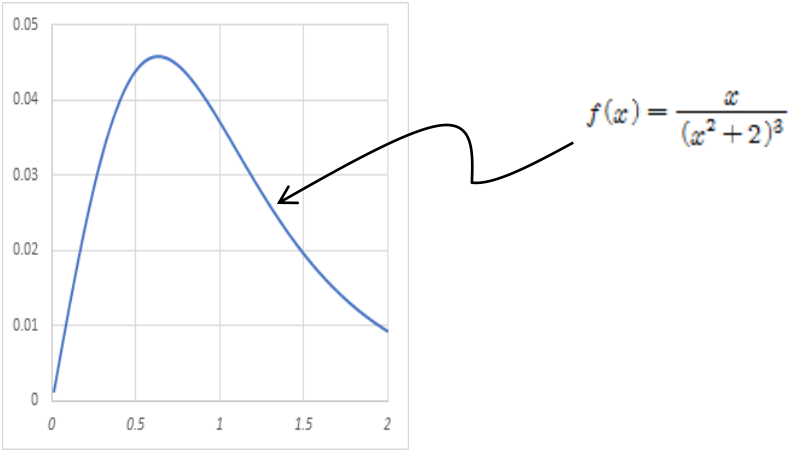
Homework Assignment 4 – due on Saturday, October 28 (Midnight)

Description of Assignment:

You are to write an MPI C program(area.c) which computes the area under the curve of a graph *f(x)* shown in the following figure. Your program should measure execution time using milliseconds and GFLOPS with the next command. You have to use **double** and **long** for variables.

mpiexec –n #processes area #number_of_loops



Use the next code frame.

```
main(int argc, char *argv[])                    // calculates local area
{                                               ...
    ....                                        // reduce local areas onto area on p0
    if (argc != 2) {                            ...
        printf("usage: %s N₩n", argv[0]);       If (pid ==0)
        exit(1);                                    // print elapsed time and GLOPS
    }                                           ...
    N = atol(argv[1]);                          }
    ...
```

Turnin the assignment:

After done your assignment, type **turnin** in your current working directory. You can retype the command at any time before the due date.