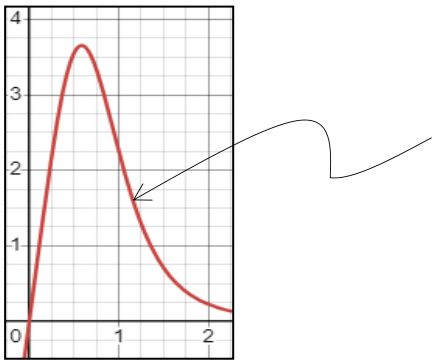
Homework Assignment 3 – due on Saturday, October 12 (Midnight)

Description of Assignment:

You are to write an openMP C program(area.c) which computes the area under the curve of a graph *f(x)*(x: 0 to 2) shown in the following figure. You have to use **double** and **long** for variables. Specify **private** and **shared** for all variables used in the parallel loop. Your program should contain both of the sequential(not parallelized) loop and the parallel loop to compare the results from two loops using elapsed milliseconds and GFLOPS. Use the next command to run.

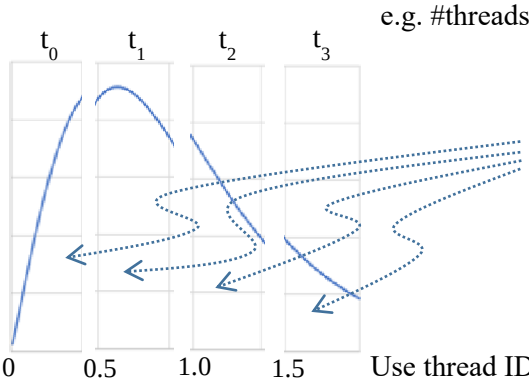
area #number_of_loops(segments) #threads



$$f(x) = \frac{9x}{(x^3+1)^2}$$

Tip for the program:

e.g. #threads=4



area on each thread

⇩ *reduction*

area

Use thread IDs to compute initial values

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.