JAVA Homework #2 (Due Oct 2 Wed)

1. Newton’s Method

Newton’s Method is used to find successive approximations to the roots of a function. If the function is and is close to a root, then we usually expect the formula below to give as a better approximation. Then you plug the back in as and iterate until they don't change. See Newton’s Method for a derivation of the formula below:

You can product a sequence of points via the recursive formula that are successively better approximation of a solution to the equation .

Let and .

1. Print and .

2) Use Newton’s method, approximate the positive root of the function.

(Express to five decimal places.)

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| Out put |
| Iteration 1 : x.xxxxx  Iteration 2 : x.xxxxx  Iteration 3 : x.xxxxx  Iteration 4 : x.xxxxx |

Each student must use the package name as hw2.

Class name is s student id hw2\_1.java

For example, if a student’s id number is 2017xxxx, the file name becomes s2017xxxxhw2\_1.java.

You should submit source code through email: younmin.bae94@gmail.com