Fixed Point Iteration Method

Algorithm

Step 1. Start the program.

Step 2. Define the function x = φ(x).

Step 3. Enter the initial guess of the root, say x0.

Step 4. Calculate y0 = φ(x0).

Step 5. If |x0 – y0| < ϵ, a prescribed accuracy, then go to step 7.

Step 6. Let x0 = y0 and go to step 4.

Step 7. Print the value of x0.

Step 8. Stop the program.