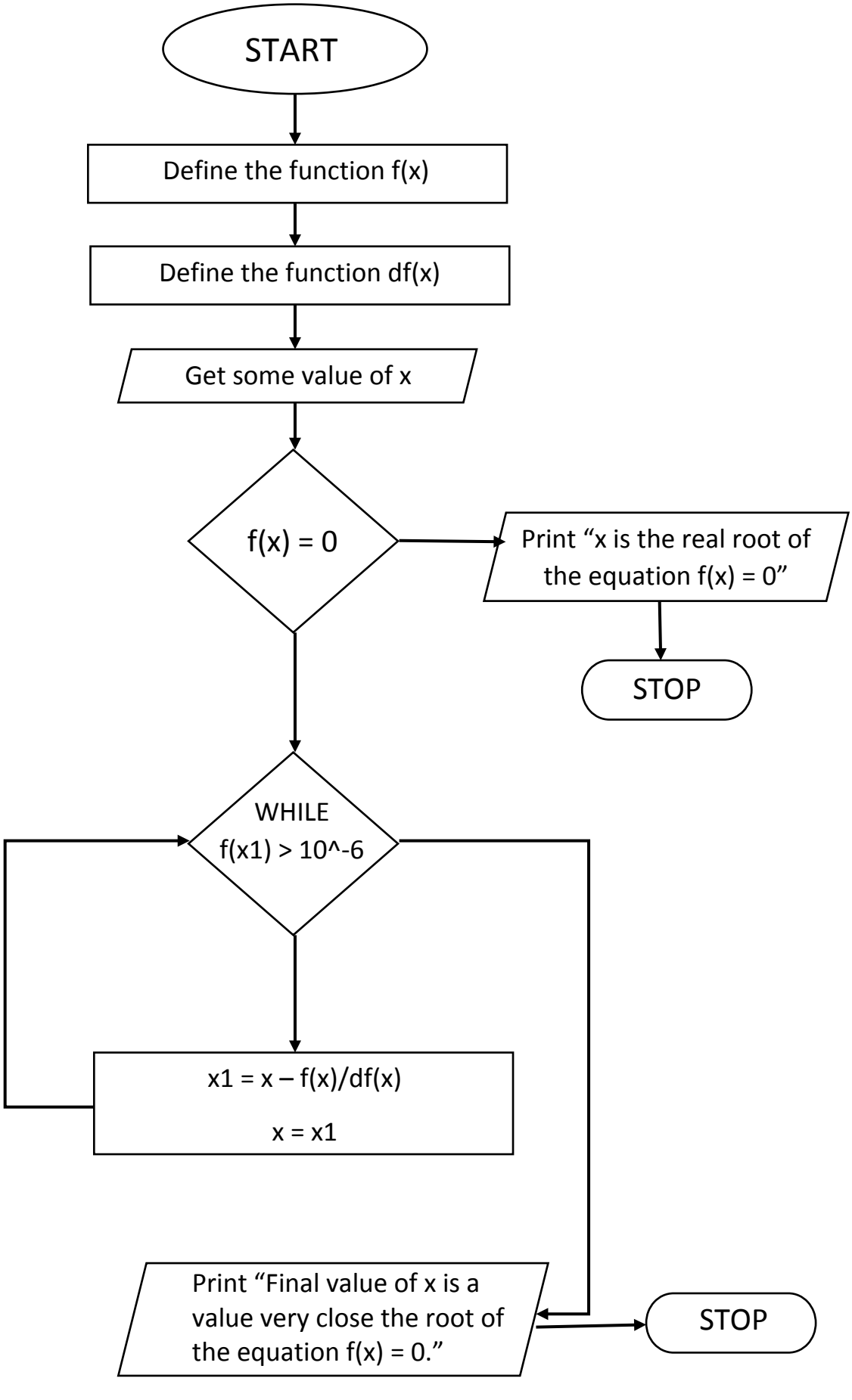
Algorithm

1. Define the function f(x).
2. Then define the differentiation of this function f(x) as df(x).
3. Input some initial value of x.
4. If f(x) is equal to zero, then the corresponding value of x is one of the root of the equation f(x) = 0.
5. Else, introduce one more variable x1, such that x1 = x – f(x)/df(x), while f(x1) is greater than 10^-5, and the new value of x = x1.
6. Final value of x is a value very close the root of the equation f(x) = 0.

Flowchart


START
Define the function f(x)
Define the function df(x)
Get some value of x
f(x) = 0
Print “x is the real root of the equation f(x) = 0”
STOP
WHILE f(x1) > 10^-6
x1 = x – f(x)/df(x)
x = x1
Print “Final value of x is a value very close the root of the equation f(x) = 0.”
STOP