**Algorithm**

Step1: -The function is defined using a function name func.

Step-2: -The differentiation of the function is defined using a user-defined function called diff.

Step-4: -Initial value(X0) is assumed to be 0.

Step-5: - A variable oldsign is used to check the sign of the function at the value of X0=0

Step-6: -Another variable newsign is used to find the sign of the function at any Xo value starting from 0.

Step-7: -A while loop is being constructed.

Step-7. i: -Old sign and new sign are being equated if equal then only the loop proceeds.

Step-7. i.1: - The value of X0 is updated by 0.1, oldsign is given the previous value of newsign, newsign is found again using the user-defined function func and we again start from the step-7.

Step-7. ii: -If not the loop ends (or exits).

Step-8: - A variable maxItr is defined for the maximum number of iterations, which is taken as 1000 here.

Step-9: -A variable tolX is defined to find the tolerance of error, which is taken as 1e-6 (or 10-6) here.

Step-10: - A variable x is assigned different values of the possible roots in each iteration, starting from Xo.

Step-11:- Another variable Xold is used to store the value of root from previous iteration for the purpose of checking precision.

Step-11: - A for loop is constructed to find the root using Newton Raphson technique.

Step-11. i: - X is updated in each iteration using the value of Xold (previous iteration) and its corresponding function value from “func” named function and differentiated function value form “diff” named function.

Step-11. iv: -A variable err is defined to check the absolute difference between the X and Xold.

Step-11. v: -If block is used to check if the tolerance is below the required tolerance (10-6) then the loop exits, else back to step 11.

Step-12: - The value of X is being displayed on the terminal screen at the output.

Step-13: -The value of function func at this value of X is also displayed in the output window.