**Algorithm for Newton Raphson Method**

Here f(x) is the given function,f(x) is first order derivative of function f(x),x0 is the initial approximations,epsilon is the prescribed tolerance,delta is the prescribed lower bound for the slope of f(x),and n is the maximum number of iterations permitted.

1. Start
2. Define function f(x)
3. Input
4. read: x0,delta,n
5. read: epsilon
6. for i=1 to n by 1 do

if(fabs(f’(x0))<=delta) then

write: “Slope of f(x)

becomes too

small near x=”,x0

exit

endif

set x1 = x0 – f(x0) / f’(x0)

set relative\_error = |((x1-x0)/x1)|

set x0 = x1

if(relative\_error<=epsilon or

f(x1) = 0)) then

write: x1,”as the

approximate root”

exit

endif

endfor

1. write: “Solution does not converge

in”,n,”iterations”

1. Stop