# MTH603 ASSIGNMENT # 1

# Numerical Analysis (MTH603) (spring 2020)

**Question: 1**

Find the root of an equation  taking initial value using Newton Raphson Method correct upto four decimal places.

**Solution:**



Taking derivative





By using newton raphson method

 for n = 0,1,2,3…

Firstly, Put n =0 



 



 

Now,  

Secondly , Put n = 1 

 Put 



 Put 

 Now , using formula 

Thirdly, Put n = 2 in formula 

 

Putting the values in formula we get,

 Required root is 0.4668

**Question: 2**

Evaluateby Newton Raphson Method correct up to four decimal places.

**Solution:**  

Since 

So we take 

Firstly, 

  

Secondly, 

  

Thirdly, 

 by putting values  Forthly, By putting values we get, Hence 