Programming Assignments Submission Template

Applied Mathematics

Programming Assignment no. : 2

Name of student: Rupesh bharat more

Branch & Block: b5 IT

Cycle No. :

Roll No. :512

Problem Statement: (copy the given problem statement here)

12. Write a code to find the square root of the mean of the squares of the first n positive odd integers, where n is a positive integer and is the only input. For example, if n is 3, your code needs to compute the square root of the average of the numbers 1, 9, and 25. You may use built-in functions including, for example, sum and sqrt, except for the built-in function rms, which is not allowed

Algorithm (Logical understanding of the problem):

These the logical problem which is divided into several steps they are as follows:

Step1:in first step ,input should be taken from user

Step2: we should assign zero value to some variable like ‘sum’

Step3:in 3rd step we should apply for loop for given n i.e

From 1to n

Step4: in that for loop we should apply range from 1 to 2n-1

Step5: in these step we should find odd no while loop s iterating for given range

Step 6: we should add that in our sum whose value is zero in given loop

Step7:in these step we will get sum which contains values for given range

Step9: we should find their average or mean by dividing it by n

Step10:and finally find square root by using inbuilt method sqrt.

Code in MATLAB: (paste the final code)

n = input('enter a no')

sum1 = 0;

for i=1:2n+1

if mod(i,2) ~= 0

sum1 = sum1 + (i.^2);

end

end

sum1 = sum1/n

sum1 = sum1.^0.5

Output of program: (Snap shot of the output of your code in command window)

Now here when we take input from user as 3 we get odd numbers 1,3,5 having squares 1,9,25

Now by dividing it by 3 we get output as 11.66

When we take finally square root of 11.66 we get the required value which is 3.414

Reporting of errors and debugging: (Mention all the errors you got in Command window while developing the code and how you resolve it. You can give the snap shot of errors here.)

Error in first attempt

in first attemp when i tried to implement i get a loooping error my looping is not perfect

Error in second attempt

during second time when i tried to implement it there are some conditions which i wrote that was not essential

……

……