MIT Academy of Engineering, Alandi (D), Pune

MATLAB Project Monthly Progress Report

Class- SY B Tech

Sub: Applied Mathematics Lab

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for the period: From 01st March 2019 to 31st March 2019.

Title of the Project:

The eight divisors of 24 are 1, 2, 3, 4, 6, 8, 12 and 24. The ten numbers not exceeding 100 having exactly eight divisors are 24, 30, 40, 42, 54, 56, 66, 70, 78 and 88. Let f(n) be the count of numbers not exceeding n with exactly eight divisors.
You are given f(100) = 10, Find f(1000).

Mathematical Approach towards solution of the problem (Explain with mathematical methods about the solution of problem partially or completely):

In matlab there is inbuilt function "divisor" to find the divisor of number.Here we will be decalring a counter to increment the count of numbers between 1 to 1000.If the length of divisors of the number is equal to the length defined then increase the counter by 1.Then display count of divisors.

Algorithm for implementing the solution through MATLAB:

- Start.
- Declare count=0.
- Iterate the variable upto the specified condition that is 1000.
- Find the divisors of the assigned variable.

- And then declare a variable and assigned the previous variable into it and find the length.
- If the length is equal to 8 then Increase the counter by 1.
- Display the count.
- Stop