

Inspiring Excellence

Course Title: Programming Language II

Course Code: CSE 111 Semester: Summer 2020

Assignment no: 1

Topic: Iteration and Condition

Easy

- 1. Count and print the numbers that are either divisible by 3 or 5 or both, from 1 to 30.
- 2. Find the maximum number among three numbers. [N.B: you do not know whether they are unique in value or not. Therefore, check all the possible conditions.]

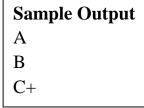
Sample Input 17 53 33

Sample Output 53

- 3. BRAC UNIVERSITY has following rules for grading system:
 - a. Equal to or above 90 A
 - b. Greater than or equal to 85 less than or equal to 89 A-
 - c. Greater than or equal to 80 less than or equal to 84 B+
 - d. Greater than or equal to 75 less than or equal to 79 B
 - e. Greater than or equal to 70 less than or equal to 74 B-
 - f. Greater than or equal to 65 less than or equal to 69 C+
 - g. Greater than or equal to 60 less than or equal to 64 C
 - h. Greater than or equal to 57 less than or equal to 59 C-
 - i. Greater than or equal to 55 less than or equal to 56 D+
 - j. Greater than or equal to 52 less than or equal to 54 D
 - k. Greater than or equal to 50 less than or equal to 51 D-
 - 1. Less than 50 F

Ask users to enter marks and print the corresponding grade.

Sample Input 92 79 65



4. Determine whether a number is prime or not. [N.B. prime number is divisible by 1 and the number itself]

Medium

1. Print all the fibonacci numbers from 0 - N, where N is a user defined number. (Fibonacci numbers is a number which is the summation of the previous two fibonacci numbers starting from 0. Like 0 1 1 2 3 5...)

Sample Input 10

Sample Output 0 1 1 2 3 5 8

2. Print the reverse of a given integer without using any built in function.

Sample Input 12345

Sample Output 54321

3. Determine whether a number is a perfect number or not. [N.B. Perfect number is a number which divisors' summation is equal to the number itself. e.g. 6 is a perfect number. It's divisors are 1, 2 and 3; 1+2+3=6].

Sample Input

6

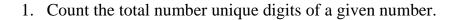
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Sample Output

Perfect Number

Not Perfect

<u>Hard</u>

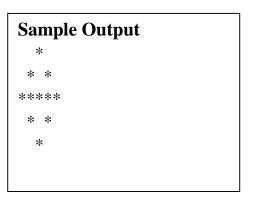


Sample Input
122345

Sample Output
5.

2. Print a pyramid like structure of size N which will be user defined. If the user inputs N=3, then the pyramid will look like the following

Sample Input 3



3. From a given integer, print the smallest possible number that consists of the same number of binary 1 of the given number. For example, the binary of 37 is 100101. Smallest number consisting of three 1's is 7 which is 111.

Sample Input 37

Sample Output

7