DailyFlash

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Note: Your 5th Program will be in continuation to previous program to achieve a final output. Therefore, you have continue coding in yesterday's last code.

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Program 1: Write a Program that print Addition of Series up to nth length if user provides length.

Series: 1/1! + 2/2! + 2/3! + … + n/n!

Input:

Enter Length of Series: 3

Output: The Addition of entered Series : 2

Program 2: Write a Program that accepts a String from user and prints the length of string.

Input: heaven is just an illusion made by weak hearts

Output: The Length of entered String is 46

Program 3: Write a Program that accepts an Array on Length N from user and calculates squares of all even elements and cubes of all odd elements from that array and replaces the elements respectively with the answer

Input: Length of Array: 6

Enter Elements in Array: 1 2 3 4 5 6

Output: Array after operation: 1 4 27 16 125 36

Program 4: Write a Program to Print following Pattern.

Output:

```
          02
     11   12
20   21   22
     31   32
          42
```

Program 5: Write a Program calculate Frequency of a Simple Pendulum (F) if user provides the Length of pendulum in (L) in meters.
{Steps: To calculate Period of simple pendulum we can use formula

$$F = 1 / T$$
$$T = 2\pi / \sqrt{L/g}$$

Where,

F : Frequency of Simple pendulum
L: is length of pendulum in Meters.
g: is acceleration but we can simply use gravitation constant since gravitational force acts on it. So (g = 9.81).
π : 3.142

}

Input: Length of Pendulum in Meters: 0.75

Output:

Period of that pendulum is: 1.73 seconds
Frequency of that pendulum: 0.57 Hz