Practice Problem of Loop

1. **You have to take pairs of input and compute their product until user gives input 0 for both numbers.**

   Read continuously a pair of numbers from user until both number is zero

2. **Write a program to compute the following series**

   $1 + x + x^2 + x^3 + x^4 + ... + x^n$

3. **e^-x = sum (((-1)^n * x^(n)) / n!)**

4. **f(0), f(1), f(2), n > = 3**

   f(n) = ?
   f(n) = f(n-1) + f(n-2) - f(n-3)

5. **How many trailing zeros in N!**

6. Print all characters (a-z & A-Z) and their corresponding ascii values using simple loop.

7. Write a program to compute the following series using loop

   $1 - 1/2 + 1/3 - 1/4 + ...\pm 1/N$

   You cannot use pow function && compute this using a single loop

8. Write a program to count the factors of a number.
   Eg. Given number >= 1
   You have to count how many factors including 1 and then number itself.

   Example 6
   Factors are 1, 2,3,6
   So output will be 4.

9. You are given two integer number m and n as input. Write a program to compute how many times n divides m.

   Example you are given 12 and 2.
Output will be 2

Because 12/2 = 6 then 6/2 =3 then 3/2 = ? no longer divisible

10. Sinx / Cosx