

Loops

(Assignment Questions)

Question 1 : WAP to find the **Factorial** of a number entered by the user.

Hint : factorial of a number $(n) = n * (n-1) * (n-2) * (n-3) * \dots * 1$

and exists for positive numbers only. We write factorial as $n!$

So, factorial of $0! = 1$, $1! = 1$, $2! = 2$, $3! = 6$, $4! = 24$ and so on.

Note - Please do not confuse factorial with NOT EQUAL TO operator, they are not the same.

Question 2 : WAP to print the multiplication table of a number, entered by the user.

Question 3 : WAP to input a number and check whether the number is an **Armstrong** number or not.

An **Armstrong** number is a number that is equal to the sum of cubes of its digits.

Question 4 : For a positive N , WAP that prints all the prime numbers from 2 to N.
(Assume $N \geq 2$)

Question 5 : For a positive N , WAP that prints the first N **Fibonacci** numbers.
(Assume $N \geq 2$)

Fibonacci series : 0, 1, 1, 2, 3, 5, 8, 13, 21, 34

This is a series where each number is a sum of previous 2 numbers in the series.

Eg : $1 = 0 + 1$,

$2 = 1 + 1$,

$3 = 1 + 2$,

$5 = 2 + 3$,

$8 = 3 + 5$ & so on.