Homework: Nested Loops

1- Write a program that displays the value of the following sum:

$$S = \sum_{i=1}^{n} \frac{x^i}{i!}$$

Where x and n are two positive integer values entered by the user.

2- Write a program which reads a sequence of integer values and shows the divisors of each one. The program stops when the user enter a negative value.

3- Write a program that displays all the prime numbers less than N, where N is an integer number entered by the user. For example, if N=10, the program prints the following:

```
enter a positive number 10
 The prime numbers under 10 are:
1       2       3       5       7
--------------------------------
Process exited after 1.994 seconds with return value 0
Press any key to continue . . .
```

4- Write programs that enters a positive integer value N, and then displays the following :

```
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```