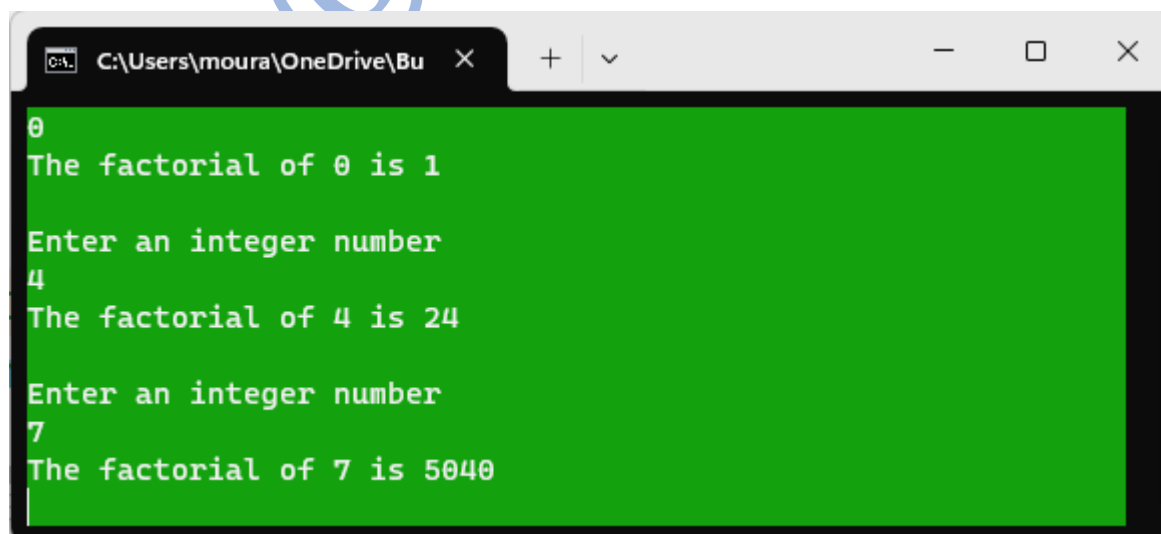## The second serie (N°02)

Solution

Exercice 04 :

1) Here is a pascal program that calculates the factorial of a user-entered integer.

```pascal
Program factorial;
var i,x,fact:integer;
Begin
writeln('Enter an integer number'); readln(x);
fact:=1;
For i:=1 to x do
begin
fact:=fact*i;
end;
writeln('The factorial of ',x,' is ',fact);
readln;
end.
```

After program running, here's the display:

- Solution:

Solution: To overcome this problem, change the variable type of "fact" from "**integer**" to "**longint**", "**real**" or "**extended**".

<u>Reminder:</u>
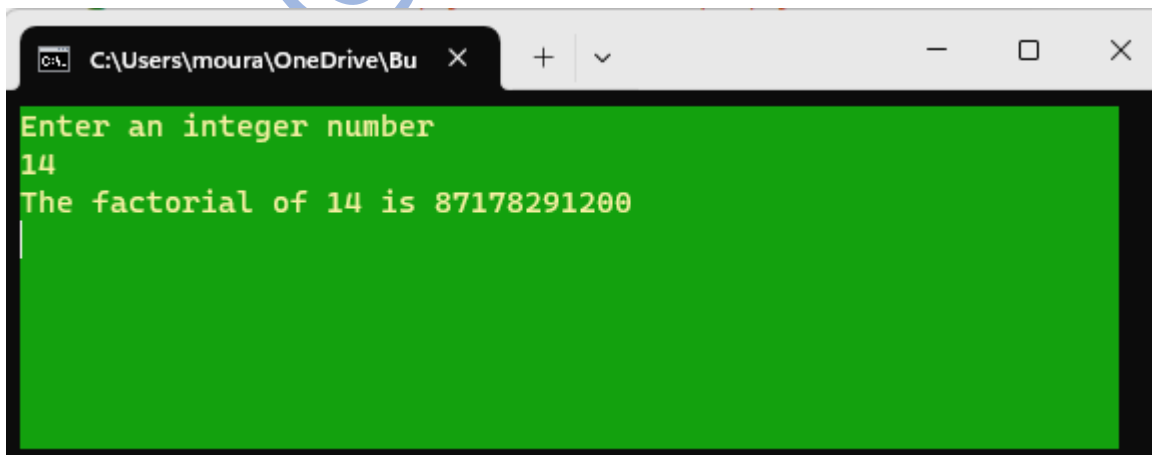
integer :(Range: -32768 to 32767)

longint :(Range: -2147483648 to 2147483647)

real :(Range: Approximately $1.5 \times 10^{(-45)}$ to $3.4 \times 10^{(38)}$)

extended :(Represents an extended-precision floating-point number)

```pascal
Program factorial;
var i,x:integer;
fact: real ;
Begin
writeln('Enter an integer number'); readln(x);
fact:=1;
For i:=1 to x do
begin
fact:=fact*i;
end;
writeln('The factorial of ',x,' is ',fact);
readln;
```

After program running, here's the display: