P6. Write a program to compute a value of factorial. The program asks a user for n, calculate factorial of n, and report the factorial value. Note that n! = n * (n−1) * ... * 3 * 2 * 1, that is,

$$n! = \prod_{i=1}^{n} i.$$

Example 1:

```
==============================================================
n:1
1 ! = 1
==============================================================
n:3
3 ! = 6
==============================================================
n:5
5 ! = 120
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```

Note 0! = 1.