Given an integer n, find the *minimal* k such that

* k = m! (where m! = 1 \* 2 \* ... \* m) for some integer m;
* k >= n.

In other words, find the smallest factorial which is not less than n.

**Example**

For n = 17, the output should be  
leastFactorial(n) = 24.

17 < 24 = 4! = 1 \* 2 \* 3 \* 4, while 3! = 1 \* 2 \* 3 = 6 < 17).

**Input/Output**

* **[time limit] 3000ms (cs)**
* **[input] integer n**

A positive integer.

*Constraints:*  
1 ≤ n ≤ 120.

* **[output] integer**

<https://codefights.com/arcade/code-arcade/loop-tunnel/7BFPq6TpsNjzgcpXy>

static int leastFactorial(int n)

{

int[] fact = { 1, 2, 6, 24, 120 };

for (int i = 0; i < fact.Length; i++)

{

if ( fact[i] >=n)

{

return fact[i];

}

}

return -1;

}