JAVA programmers: your program name must be: prob03.class
C programmers: your program name must be: prob03.exe

Task Description

The combination of n things taken m at a time is a value often used in mathematics and business. With this program you will read input values, n and m, and output the number of different combinations of m things that can be formed from a group containing n members. This can be calculated by computing the factorial of n and dividing it by the factorial of m and then further dividing the result by the factorial of (n – m). The value, n-factorial is computed by multiplying n by n – 1, then multiplying the result by n – 2, and so forth, until the final result is multiplied by 1. n-factorial is sometimes written as n! Thus, 5-factorial (5!) is calculated in the following fashion: 5 x (5 – 1) x (5 – 2) x (5 – 3) x (5 – 4) = 5 x 4 x 3 x 2 x 1 = 120. 3! is calculated similarly as 3 x (3 – 1) x (3 – 2) = 3 x 2 x 1 = 6. And (5 – 3)!, otherwise known as 2!, is calculated as 2 x (2 – 1) = 2 x 1 = 2. Thus, the number of different combinations of 5 things taken 3 at a time is calculated as follows:

     n! / [m! x (n – m)!]
    = 5! / [3! x (5 – 3)!]
    = 120 / [6 x2]
    = 120 / 12
    = 10.

Your program must calculate this value for any values of n and m. You must output the result as an integer. For this problem, you will not need to worry about integer overflow. All input is read from stdin. Inputs n and m will be separated by a single space and terminated by a newline character.

Sample Input/Output

```
Enter n and m:  10 5
252
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