RECURSIVE sum of product of pairs of consecutive numbersX42469_en

Write a **RECURSIVE** function such that given an integer $n \geq 1$, computes $1 \times 2 + 2 \times 3 + \cdots + (n-1) \times n$. Also, write a program that reads several n's and shows the result of the function for each of them.
The main function should be of the following form, where `your_function_name` should be replaced by the name you have chosen for the function.

```
int main()
{
  int n;
  while (cin>>n) {
    cout<<your_function_name(n)<<endl;
  }
}
```

Note: A program accepted by the judge that solves the problem without using a **RECURSIVE** function will be considered invalid and will have a final score 0.
Note: Recall that at this point of the course using vectors or any other method to store massive data is not allowed.
Exam score: 2.5 **Automatic part:** 100%

Input

The input has several lines, each one with an integer $n \geq 1$.

Output

The output has the result of the function in a different line for each n.

Sample input	Sample output
1 2 3 4 5	0 2 8 20 40

Problem information

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