
ITERATIVE sum of product of pairs of consecutive numbersX31562_en

Write an **ITERATIVE** (using `while` or `for`) function such that given an integer $n \geq 1$, computes $1 \times 2 + 2 \times 3 + \dots + (n - 1) \times n$. 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 an **ITERATIVE** (using `while` or `for`) 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 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

1
2
3
4
5

Sample output

0
2
8
20
40

Problem information

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