





5 - Triangular Sums

The n-th Triangular number, T(n) = 1 + ... + n, is the sum of the first n integers. It is the number of points in a triangular array with n points on side. For example T(4):

> Х хх ххх хххх

Write a program to compute the weighted sum of triangular numbers:

```
W(n) = SUM[k = 1...; k*T(k+1)]
```

Input

The first line of input contains a single integer N, $(1 \le N \le 1000)$ which is the number of datasets that follow.

Each dataset consists of a single line of input containing a single integer n, $(1 \le n \le 300)$, which is the number of points on a side of the triangle.

Output

For each dataset, output on a single line the dataset number, (1 through N), a blank, the value of n for the dataset, a blank, and the weighted sum, W(n), of triangular numbers for n.

Sample Input	Sample Output	
4	1 3 45	
3	2 4 105	
4	3 5 210	
5	4 10 2145	
10		

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