B • 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)`:

```
   X
  X X
 X X X
X X X X
```

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

$$W(n) = \text{SUM}[k = 1..n;\ k*T(k+1)]$$

Input

The first line of input contains a single integer **N**, ($1 \le$ **N** ≤ 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** ≤ 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	