

Smart Matrix Sum



Given an integer N , construct a matrix of size $N \times N$ with values as $\text{arr}[i][j] = \text{floor}(i/j)$. Find the sum of the elements of the constructed matrix. You should assume 1-based indexes to construct the matrix.

Input Format

First line of input contains T - number of test cases. Its followed by T lines, each contains a single integer N .

Constraints

30 points

$1 \leq T \leq 100$

$1 \leq N \leq 100$

70 points

$1 \leq T \leq 1000$

$1 \leq N \leq 10^4$

Output Format

For each test case, print the sum of the elements of the constructed matrix, separated by newline.

Sample Input 0

```
2
4
5
```

Sample Output 0

```
17
27
```

Explanation 0

Test Case 1

The matrix will look as follows, which sums upto 17.

```
1 0 0 0
2 1 0 0
3 1 1 0
4 2 1 1
```

Test Case 2

The matrix will look as follows, which sums upto 27.

```
1 0 0 0 0
2 1 0 0 0
3 1 1 0 0
4 2 1 1 0
5 2 1 1 1
```