DWITE '10 R3 #2 - Unit rectangles

Time limit: 2.0s **Memory limit:** 64M

DWITE Online Computer Programming Contest, December 2010, Problem 2

Rectangles can be constructed out of smaller squares. Given a supply of unit squares (1×1 in size), how many unique rectangles can be constructed?

The input file will contain 5 lines, each an integer $1 \leq N \leq 1000$, the number of unit squares available.

The output will contain 5 lines, each a number of unique rectangles that can be constructed from **up to** N unit squares (not all squares have to be used for some of the rectangles).

Note: a rectangle is unique if another rectangle that had previously been constructed can't be rotated to look the same way. That is, 2×3 and 3×2 are considered to be the same.

Sample Input

```
2
6
```

Sample Output

```
2
8
```

Problem Resource: DWITE