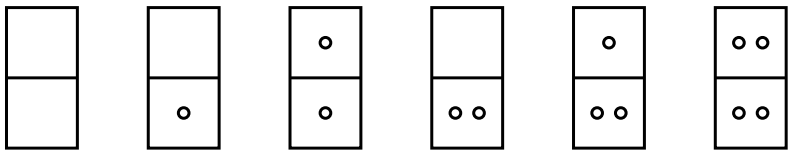
COCI '09 Contest 1 #2 Domino

Time Limit: 1.0s **Memory Limit:** 32M

Dominoes are gaming pieces used in numerous tile games. Each domino piece contains two *marks*. Each mark consists of a number of spots (possibly zero). The number of spots depends on the set size. Each mark in a size N domino set can contain between 0 and N spots, inclusive. Two tiles are considered identical if their marks have the same number of spots, regardless of reading order. For example tile with 2 and 8 spot marks is identical to the tile having 8 and 2 spot marks. A proper domino set contains no duplicate tiles. A **complete** set of size N contains all possible tiles with N or less spots and no duplicate tiles. For example, the complete set of size 2 contains 6 tiles:



Write a program that will determine the total number of spots on all tiles of a complete size N set.

Input Specification

The first and only line of input contains a single integer, N $(1 \leq N \leq 1000)$, the size of the complete set.

Output Specification

The first and only line of output should contain a single integer, total number of spots in a complete size N set.

Sample Input 1

```
2
```

Sample Output 1

```
12
```

Sample Input 2

```
3
```

Sample Output 2

```
30
```

Explanation for Sample Output 2

Size 3 set contains tiles:

```
[0|0], [0|1], [0|2], [0|3], [1|1], [1|2], [1|3], [2|2], [2|3] and [3|3].
```

Sample Input 3

```
15
```

Sample Output 3

```
2040
```