Joana loves playing with odd numbers. In the other day, she started writing, in each line, an odd number of odd numbers. It looked as follows:

```
1
 3  5  7
 9 11 13 15 17
19 21 23 25 27 29 31
...
```

On a certain line Joana wrote 55 odd numbers. Can you discover the sum of the last three numbers written in that line? Can you do this more generally for a given quantity of odd numbers?

Given the number N of odd numbers in a certain line, your task is to determine the sum of the last three numbers of that line.

Input

The input is a sequence of lines, one odd number N ($1 < N < 1000000000$) per line

Output

For each input line write the sum of the last three odd numbers written by Joana in that line with N numbers. This sum is guaranteed to be less than 2^{63}.

Sample Input

```
3
5
7
```

Sample Output

```
15
45
87
```