## N-th Term

Find the $n$-th term of the sequence $1,4,16,36,100, \ldots$

## Input

First Line : T (No. of test cases < 1000)
T Lines each containing a value of $n(n<100000)$

## Output

Exactly T lines each containing $n$-th term of the sequence.

## Example

Input:
4
2
3
4

5
Output:
4
16
36
100

