Figures

2022/2023 SEASON - SECOND ROUND



Let *n* be a natural number. You have infinitely many figures of 4 types:









Formally, they are obtained by removing one square from a 2 by 2 square. Consider a n by n square. You want to place the maximum number of figures in this square so that none of them comes out of the square and no two overlap. Find that amount. Answer t such tests.

Input

The first line of the file **figures.in** contains the number t. Each of the next t lines contains one number - n for the corresponding test.

Output

Print the answer of each test on a new line in the file **figures.out**.

Constraints

 $1 \leq t \leq 10$

 $1 \le n \le 200$

Time limit: 0.2 sec. Memory limit: 256 MB.

Sample test

Input (figures.in)	Output (figures.out)
2	0
1	5
4	