Problem G. Pythagoras, One More Time

"Pythagoras, One More Time" triples over n are all solutions of $x^2 + y^2 = z^2 - 7$ where x, y and z are constrained to be positive integers less than or equal to n.

You are to calculate the number of the triples (x, y, z) such that $x \leq y \leq z$.

Input

The first line is an integer T ($1 \leq T \leq 10000$) indicating the total number of cases.

For each test case a line contains the integer n ($1 \leq n \leq 10^8$).

Output

For each case output the total number of triples in a line.

Sample

10 1 2 3 4 5 6 7 8 9 10	0 0 1 1 2 3 3 3 4 4