Problem H. Homework

Input:	Standard
Output:	Standard
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Thom doesn't like maths, so he always tries to do his math homework first. His last homework was to find the number of ways we can add 3 non-negative integer such that thier sum is N.

$$a + b + c = N$$

Thom had already done his homework, but since he is a bit messy; he mixed the answers and now he doesn't know to which N belongs. Help Thom to find which N belong to his answers, consider that Tom is not good at math so he may have found wrong answers.

Input

The first line contains a single integer T ($1 \leq T \leq 10000$) and then T lines follows, each one contains an integer S ($3 \leq S \leq 50000000$) that represent the answer of Thom.

Output

For each test case, your program must print the value of N if Thom's answer was correct otherwise print `No solution`

Example

Input	Output
10	1
3	No solution
14	No solution
63	No solution
8	12
91	No solution
102	16
153	No solution
30	23
300	No solution
3440	

Use fast I/O methods