

Fake News

Input file: **standard input**
Output file: **standard output**
Time limit: 1 second
Memory limit: 256 megabytes

McDonald Thumb, the greatest president ever in the history of the Great Tokitsukaze Kingdom has held his 100th press conference about the global pandemic after making his 1000000th tweets with his smartphone. With a big smile on his face, Mr. Thumb said that nobody knows math more than he does.

‘I learn math since I was born and I am very good at it’, said Mr. Thumb. ‘People keep asking me why I know math so much and I sometimes find myself having those amazing ideas about math.’

‘For example?’, asked by a reporter.

‘Oh you, I know you! Fake news! You and your agency always produce fake news!’, replied angrily by Mr. Thumb. ‘Let me teach you something, do you know if you add up the squares of numbers from 1 to n , the sum will never be a square number?’

As another reporter in that press conference, you also wondering that given n , whether $\sum_{k=1}^n k^2$ is a square number. Specifically, we regard a positive number x as a square number when there exists an integer y satisfying $y^2 = x$.

Input

There are multiple test cases. The first line of the input contains an integer T ($1 \leq T \leq 10^6$) indicating the number of test cases.

For each test case, the first line contains one integer n ($1 \leq n \leq 10^{15}$).

Output

If the sum is a square number, please output **Fake news!** in one line. Otherwise, please output **Nobody knows it better than me!** instead.

Example

standard input	standard output
5	Fake news!
1	Nobody knows it better than me!
2	Nobody knows it better than me!
3	Nobody knows it better than me!
4	Nobody knows it better than me!
5	