F. Is it a Perfect Square?

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

Vashkar Sir is teaching the students different problem-solving techniques. During the lecture, he introduced the topic of number theory.

While he was explaining, a curious student named **Sahil** stood up and asked,

"Sir, how do we know if a number is a perfect square?"

Vashkar Sir smiled and replied,

"That's your assignment — figure it out!"

Sahil, who is very dedicated and polite, became determined to solve the problem. He is eager to learn how to check efficiently whether a number is a perfect square.

Your task is to help Sahil determine whether a given number n is a perfect square or not. Print `YES` if it is, otherwise print `NO`.

Input

Each test contains multiple test cases. The first line contains a single integer t ($1 \le t \le 10^4$) — the number of test cases.

The description of the test cases follows: Each test case contains a single integer n ($1 \le n \le 10^9$).

Output

For each test case:

- If n is a perfect square, print print on a newline any of the following (case-insensitive): `yes`, `Yes`, `yEs`, `yeS`, `yES`, `YeS`, `YEs`, `YES`
- Otherwise, print on a newline any of the following: `no`, `No`, `nO`, `NO`

Example

standard input	standard output
5 4 7 8 16 25	YES NO NO YES YES

Note

In the first test case: 4 is a perfect square number.

$$2 \times 2 = 4$$

In the 2nd and 3rd test case: 7 and 8 are not a perfect square number. In the 4'th and 5'th test case: 16 and 25 are a perfect square number.

$$4 \times 4 = 16$$

$$5 \times 5 = 25$$