C. Product of Three Numbers

time limit per test: 2 seconds
memory limit per test: 256 megabytes

You are given one integer number n. Find three **distinct integers** a, b, c such that $2 \le a, b, c$ and $a \cdot b \cdot c = n$ or say that it is impossible to do it.

If there are several answers, you can print any.

You have to answer t independent test cases.

Input

The first line of the input contains one integer t ($1 \le t \le 100$) — the number of test cases.

The next n lines describe test cases. The i-th test case is given on a new line as one integer n ($2 \le n \le 10^9$).

Output

For each test case, print the answer on it. Print "NO" if it is impossible to represent n as $a \cdot b \cdot c$ for some **distinct integers** a, b, c such that $2 \le a, b, c$.

Otherwise, print "YES" and **any** possible such representation.

Example

input Copy

```
5
64
32
97
2
12345
```

output Copy

```
YES
2 4 8
NO
NO
NO
YES
3 5 823
```