

Problem M. Product of Three Numbers

Time limit 2000 ms
Mem limit 262144 kB

You are given one integer number n . Find three **distinct integers** a, b, c such that $2 \leq a, b, c$ 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 ($1 \leq t \leq 100$) — 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 ($2 \leq n \leq 10^9$).

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 $2 \leq a, b, c$.

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

Sample 1

Input	Output
5	YES
64	2 4 8
32	NO
97	NO
2	NO
12345	YES
	3 5 823