Problem A. Humpty-bump

Input file: standard input
Output file: standard output

Time limit: 0.5 seconds Memory limit: 256 megabytes

Moncef has a great programmable aerobatic plane, latestly he find new movement named "Humpty-bump" that his plane does not support, as Moncef is a great programmer, he tried to add this movement as a feature in his plane.

After a long research and implementation, he finished this feature and tried to simulate it in the computer before updating it in his real plane. Sadly, in the simulation mode the program crashes many times, so he tried to debug it, and finally he finds the problem which is this mathematical equation: $\frac{(v! \times w!)^p}{u^k}$. to avoid the crashing, $(v! \times w!)^p$ must divide u^k .

Since you are a real problems' solver Moncef asked you to help him with this and think of an algorithm that can provide the right answer.

Input

The first line contains T the number of test cases, $(1 \le T \le 100)$.

For each line of the next T, it contains five numbers u, v, w, p and k $(1 \le u \le 2^{31} \text{ et } 1 \le v, w \le 10^3)$ and $(0 \le p, k \le 10^5)$, numbers are given in the same order.

Output

Print "YES" (without quotes) if it's possible to divide $(v! \times w!)^p$ by u^k otherwise print "NO".

Example

standard input	standard output
2	YES
2 3 4 5 2	NO
5 3 4 7 7	