

D. Game with Powers

time limit per test: 1 second

memory limit per test: 256 megabytes

input: standard input

output: standard output

Vasya and Petya wrote down all integers from 1 to n to play the "powers" game (n can be quite large; however, Vasya and Petya are not confused by this fact).

Players choose numbers in turn (Vasya chooses first). If some number x is chosen at the current turn, it is forbidden to choose x or all of its other positive integer powers (that is, x^2, x^3, \dots) at the next turns. For instance, if the number 9 is chosen at the first turn, one cannot choose 9 or 81 later, while it is still allowed to choose 3 or 27. The one who cannot make a move loses.

Who wins if both Vasya and Petya play optimally?

Input

Input contains single integer n ($1 \leq n \leq 10^9$).

Output

Print the name of the winner — "Vasya" or "Petya" (without quotes).

Examples

input
1
output
Vasya

input
2
output
Petya

input
8
output
Petya

Note

In the first sample Vasya will choose 1 and win immediately.

In the second sample no matter which number Vasya chooses during his first turn, Petya can choose the remaining number and win.