

Czech Technical University in Prague ICPC Foundation Czech ACM Chapter



Central Europe Regional Contest 2018

Game of Stones

stones.c, stones.cpp, Stones.java, stones.py

Two players, Petyr and Varys, play a game in which players remove stones from N piles in alternating turns. Petyr, in his turn, can remove at most A stones from any pile. Varys, in his turn, can remove at most B stones from any pile. Each player has to remove at least one stone in his turn. The player who removes the last stone wins.

The game has already started and it is Petyr's turn now. Your task is to determine whether he can win the game if both he and Varys play the game in the best possible way.

Input Specification

The first input line contains three integers N, A, and B ($1 \le N \le 10^5$ and $1 \le A, B \le 10^5$). N describes the number of piles and A, B represent Petyr's and Varys' restrictions. The second line contains N integers X_1, \ldots, X_N ($1 \le X_i \le 10^6$) specifying the current number of stones in all piles.

Output Specification

Output the name of the winner.

Sample Input 1	Output for Sample Input 1

2 3 4 Petyr 2 3

Sample Input 2 Output for Sample Input 2

7 8 9 Varys

1 2 3 4 5 6 7