

Problem C: Power Surge Detection

CORA navigates the distance to the computer console on the other side of this room. She needs to login to the console to access the factory systems, but the other robots are causing havoc in the electrical grid in the facility.

CORA needs to check if and when a power surge will occur before she can safely access the factory terminal. A power surge occurs when a power level is significantly higher than the previous power level. You need to write a program which will read in a list of power levels and find the first power surge, where the power level jumps by 10 or more units from the previous reading, or report that no power surge occurs.

Input

The first line of input will contain an integer N giving the number of power readings in the input. Following that will be N lines, each containing one positive integer representing a power level reading.

Output

Output should either be “Surge at P” where ‘P’ is the first power level that is at least 10 units higher than the previous one, or “No surge detected” if there is no surge in the input.

Sample Input 1

5
78
83
95
92
109

Sample Output 1

Surge at 95

Sample Input 2

6
55
58
42
51
60
51

Sample Output 2

No surge detected