UJ Test 1

Detect

whether the following is an arithmetic series or not.

Input

Each line contains space separated numbers.

HI

0
A line with only 0 is the end of input.

Output

'Yes' if input sequence is really an arithmetic series.
'No' otherwise.

Example

Input:

1 3 5 7

9 8 7 6 5 4

1 2 4 5

0

Output:
Yes
Yes
No