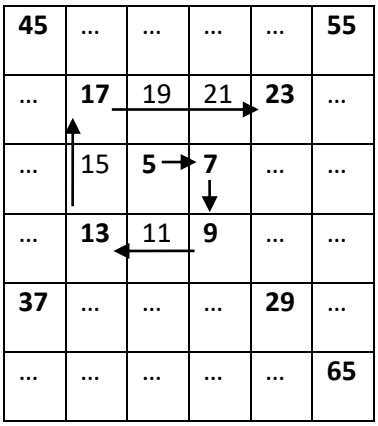
Crossing Sequences

We're dealing with two sequences: the **Tribonacci sequence**, where every number is the sum of the previous three, and the **number spiral**, defined by walking over a grid of numbers as a spiral (right, down, left, up, right, down, up, left, …) and writing down the current number every time we take a turn. Find the first number that appears in both sequences.

Example

Let the Tribonacci sequence start with 1, 2 and 3. It will therefore contain the numbers 1, 2, 3, 6, 11, 20, 37, 68, 125, 230, 423, 778, 1431, 2632, 4841, 8904, 16377, 30122, 55403, 101902, and so on.

Also, let the number spiral start with 5 and have a step of 2; it then contains he numbers 5, 7, 9, 13, 17, 23, 29, 37, etc. Since 37 is the first number that is both in the Tribonacci sequence and in the spiral, it is the answer.



Input

The input data should be read from the console.

- On the first three lines of input, you will read **three integers**, representing the three initial numbers of the Tribonacci sequence.
- On the next two lines of input, you will read **two integers**, representing the initial number and the step of each grid cell for the number spiral.

The input data will always be valid and in the format described. There is no need to check it.

Output

The output must be printed on the console.

On the single line of output you must print **the smallest number that appears in both sequences**. If no number **in the range [1 … 1 000 000]** exists that appears in both sequences, print "**No**".

Constraints

- All numbers in the input will be in the range [1 … 1 000 000].
- Allowed work time for your program: 0.25 seconds.
- Allowed memory: 16 MB.

Examples

Input	Output
1 2 3 5 2	37

Input	Output
1 1 1 1 1	1

Input	Output
13 25 99 5 2	13

Input	Output
99 99 99 2 2	No

Input	Output
4 1 7 23 3	71