

## A. Magic Spheres

time limit per test: 2 seconds

memory limit per test: 256 megabytes

input: standard input

output: standard output

Carl is a beginner magician. He has  $a$  blue,  $b$  violet and  $c$  orange magic spheres. In one move he can transform two spheres **of the same color** into one sphere of any other color. To make a spell that has never been seen before, he needs at least  $X$  blue,  $Y$  violet and  $Z$  orange spheres. Can he get them (possible, in multiple actions)?

### Input

The first line of the input contains three integers  $a$ ,  $b$  and  $c$  ( $0 \leq a, b, c \leq 1\,000\,000$ ) — the number of blue, violet and orange spheres that are in the magician's disposal.

The second line of the input contains three integers,  $X$ ,  $Y$  and  $Z$  ( $0 \leq X, Y, Z \leq 1\,000\,000$ ) — the number of blue, violet and orange spheres that he needs to get.

### Output

If the wizard is able to obtain the required numbers of spheres, print "Yes". Otherwise, print "No".

### Examples

<b>input</b>
4 4 0 2 1 2
<b>output</b>
Yes
<b>input</b>
5 6 1 2 7 2
<b>output</b>
No
<b>input</b>
3 3 3 2 2 2
<b>output</b>
Yes

### Note

In the first sample the wizard has 4 blue and 4 violet spheres. In his first action he can turn two blue spheres into one violet one. After that he will have 2 blue and 5 violet spheres. Then he turns 4 violet spheres into 2 orange spheres and he ends up with 2 blue, 1 violet and 2 orange spheres, which is exactly what he needs.

### Codeforces Round #335 (Div. 2)

Finished

### → Virtual participation

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Start virtual contest

### → Problem tags

implementation

No tag edit access

### → Contest materials

- Tutorial