Filling Cans

Two cans are with capacity X and Y liters. The program must determine the number of steps required to obtain exactly Z litres of liquid in one of the cans.
At the beginning both cans are empty. The following operations are counted as "steps".

- emptying a vessel,
- filling a vessel,
- pouring liquid from one can to the other, without spilling, until one of the cans is either full or empty.

If it is not possible to obtain Z liters exactly then the output must be -1.

Boundary Conditions:
0 < X <= 100
0 < Y <= 100
0 < Z <= 100

Input Format:
First line will contain the value of X
Second line will contain the value of Y
Third line will contain the value of Z

Output Format:
The number of steps required as an integer. If it is not possible to obtain Z liters then the output is -1.

Sample Input/Output:

Example 1:

Input:
5
2
3

Output:
2

Explanation:
Here X=5, Y=2
Step 1: Pour 5 liters of liquid into 5 liter can
Step 2: Pour 2 liters from 5 liter can into 2 liter can.
Now the 5 liter can will have 3 liters which is Z. Hence 2 steps are required.

Example 2:
Input:
2
3
4

Output:
-1

Explanation:
Z is greater than X and Y. Hence it is not possible to have 4 liters in any one of the cans. Hence output is -1.