



MIKROSKIL IDEAFUSE COMPETITION 2025

Candies, More Chocolates

Oski and his nephew went to the sweet shop. His nephew, being a sweet tooth, insisted that they should buy more chocolates than candies. Eventually, Oski agreed and bought M more chocolates than candies.

Each candy costs A coins, and each chocolates costs B coins. When they reached the counter, the total amount Oski paid was X coins.

Now his nephew is curious: "Uncle Oski, can you tell me exactly how many candies and chocolates we bought?"

Your task is to find out the number of candies and chocolates they bought. If no valid positive integer number of candies or chocolates fits the given information, output -1 .

Input Format

$A B M X$

Output Format

The number of candies and chocolates they bought, separated with a space. Output -1 if there is no valid answer.

Constraints

- $1 \leq A, B, M \leq 10^5$
- $1 \leq X \leq 10^{18}$

Examples

Sample Input 1

1 2 3 15

Sample Output 1

3 6

Sample Input 2

2 5 3 20

Sample Output 2

-1