Rising Star

Time Limit	1s
Memory Limit	64MB

Description

Good News! Rising Star is starting an audition in Bandung! It's time to shine! You want to join the audition. You know there is N contestants, numbered from 1 to N.

The jury is very high-skilled singer that can score a singing skill with a number from 1 to 10^5. If the i-th contestant's singing skill is greater than all contestants with number j where $j < i$, the contestant will pass to the next stage. However, if the i-th contestant's singing skill is greater than sum all other j-th contestant's singing skill, where $j < i$, the contestant will not only pass to the next stage, but he/she will receive a golden ticket to the final!

Now you hear there are A contestants that pass to the next stage and B contestants that get golden ticket. Now you wonder what is the sequence of the contestants' singing skill.

Input Format

The first and only line will consists of N, A, and B separated by single space.

Output Format

Output a line consists of $t_1, t_2, t_3, \ldots, t_N$. If there are more than one possible sequence, output any of them. If there are no possible sequence, output a single number -1.

Constraint

- $1 \leq N \leq 100$

- $0 \leq A, B \leq 15$

- $1 \leq t_1, t_2, \ldots, t_N \leq 50.000$

- $N > A + B$

Sample Input 1

10 2 3

Sample Output 1

5 1 2 7 16 35 46 4 350 80

Sample Input 2

5 0 0

Sample Output 2

10 10 6 6 5

Explanation

On the first example, the contestants that pass to the next stage (but dont get golden ticket) is (marked with bold) 5 1 2 **7** 16 35 **46** 4 350 80. The contestants that get the the golden ticket are 5 1 2 7 **16 35** 46 4 **350** 80.