B. Wonder Room

time limit per test: 1 second
memory limit per test: 256 megabytes
input: standard input
output: standard output

The start of the new academic year brought about the problem of accommodation students into dormitories. One of such dormitories has a $a \times b$ square meter wonder room. The caretaker wants to accommodate exactly n students there. But the law says that there must be at least 6 square meters per student in a room (that is, the room for n students must have the area of at least $6n$ square meters). The caretaker can enlarge any (possibly both) side of the room by an arbitrary positive integer of meters. Help him change the room so as all n students could live in it and the total area of the room was as small as possible.

Input

The first line contains three space-separated integers n, a and b ($1 \le n, a, b \le 10^9$) — the number of students and the sizes of the room.

Output

Print three integers s, a_1 and b_1 ($a \le a_1$; $b \le b_1$) — the final area of the room and its sizes. If there are multiple optimal solutions, print any of them.

Examples

input
3 3 5

output
18 3 6

input
2 4 4

output
16 4 4