Problem K. K

Time limit 2000 ms
Mem limit 1048576 kB

Problem Statement

AtCoder Inc. sells glasses and mugs.

Takahashi has a glass with a capacity of G milliliters and a mug with a capacity of M milliliters.
Here, $G < M$.

Initially, both the glass and the mug are empty.
After performing the following operation K times, determine how many milliliters of water are in the glass and the mug, respectively.

- When the glass is filled with water, that is, the glass contains exactly G milliliters of water, discard all the water from the glass.
- Otherwise, if the mug is empty, fill the mug with water.
- Otherwise, transfer water from the mug to the glass until the mug is empty or the glass is filled with water.

Constraints

- $1 \leq K \leq 100$
- $1 \leq G < M \leq 1000$
- G, M, and K are integers.

Input

The input is given from Standard Input in the following format:

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K G M
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Output

Print the amounts, in milliliters, of water in the glass and the mug, in this order, separated by a space, after performing the operation K times.

Sample 1

Input	Output
5 300 500	200 500

The operation will be performed as follows. Initially, both the glass and the mug are empty.

- Fill the mug with water. The glass has 0 milliliters, and the mug has 500 milliliters of water.
- Transfer water from the mug to the glass until the glass is filled. The glass has 300 milliliters, and the mug has 200 milliliters of water.
- Discard all the water from the glass. The glass has 0 milliliters, and the mug has 200 milliliters of water.
- Transfer water from the mug to the glass until the mug is empty. The glass has 200 milliliters, and the mug has 0 milliliters of water.
- Fill the mug with water. The glass has 200 milliliters, and the mug has 500 milliliters of water.

Thus, after five operations, the glass has 200 milliliters, and the mug has 500 milliliters of water. Hence, print 200 and 500 in this order, separated by a space.

Sample 2

Input	Output
5 100 200	0 0