

# Rating

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**Time Limit:** 1.0s **Memory Limit:** 256M

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This year METU CClub Programming Contest has attracted  $N$  participants. Each contestant has a rating which is always a positive integer. Let's denote the participant ratings with  $R_1, R_2, \dots, R_N$ . It's known that the maximal rating is  $Max$ , the minimal rating is  $Min$  and the average rating is  $Mean$  where:

- $Max = \max(R_1, R_2, \dots, R_N)$
- $Min = \min(R_1, R_2, \dots, R_N)$
- $Mean = (R_1 + R_2 + \dots + R_N) / N$

Your task is to find any possible set of METU CClub Programming Contest participant ratings.

## Input

Four integers  $N$ ,  $Max$ ,  $Min$  and  $Mean$  separated with single spaces.

## Output

Print  $N$  positive integers  $R_1, R_2, \dots, R_N$  separated with single spaces. If there are multiple solutions print any of them. If there is no solution print "Impossible" (quotes for clarity) instead.

## Constraints

- $1 \leq N \leq 100$
- $1 \leq Min \leq Mean \leq Max \leq 10000$

## Examples

### Input (stdin)

```
4 2000 1000 1400
4 2000 1000 1800
```

### Output(stdout)

```
1600 1000 2000 1000
Impossible
```

## Notes

In the first sample there are multiple solutions, for instance:

- 1000 1275 1325 2000

- 2000 1000 1599 1001