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 $R_1, R_2, \ldots, R_N$. It’s known that the maximal rating is $Max$, the minimal rating is $Min$ and the average rating is $Mean$ where:

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

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 $R_1, R_2, \ldots, R_N$ 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