

Mutual Indivisibility



Jugnu has recently been appointed as the sports captain. The headmaster asked her to form a team for an upcoming table tennis tournament, subject to a few constraints.

Each student of the school is assigned an integer denoting his/her skill level. The headmaster requests Jugnu to form an *indivisible* team of size x . The team is *indivisible* if it satisfies the following conditions.

- To make the team strong, each member of the team must have a skill level in the range $[a, b]$.
- The size of the team must be x .
- Let g_1 and g_2 be the skill levels of any two distinct players in the team. Then g_1 should not divide g_2 . This is necessary to avoid clashes.

Can you help Jugnu form an indivisible team? Assume that for every g , Jugnu can always find a student with skill level g .

Input Format

The first line contains a single integer t , the number of test cases. The descriptions of t test cases follow.

Each test case consists of a single line containing three space-separated integers a , b and x .

Constraints

- $1 \leq t \leq 50$
- $1 \leq a < b \leq 10^4$
- $2 \leq x \leq b - a + 1$

Output Format

For each test case, print a single line containing x space-separated integers denoting the skill levels of the team members, or "-1" (without quotes) if it's impossible to build an indivisible team.

You may output the elements in any order. Any valid solution will be accepted.

Sample Input 0

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3
1 3 2
3 9 3
2 5 4
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Sample Output 0

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2 3
3 7 8
-1
```

Explanation 0

Test case 1: The list of skill levels is $[2, 3]$. Notice that neither 2 divides 3 nor 3 divides 2.

Test case 2: There are multiple valid answers, e.g., $[3, 4, 5]$, $[3, 5, 7]$, $[3, 7, 8]$, $[5, 8, 9]$, etc.

Test case 3: It is not possible to form an indivisible team.