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

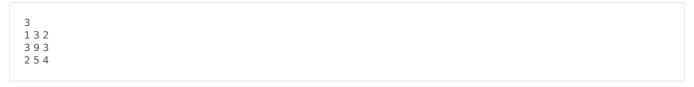
- 1 < t < 50
- $1 \le a < b \le 10^4$
- $2 \le x \le b a + 1$

Output Format

For each test case, print a single line containing \boldsymbol{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



Sample Output 0

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2 3
3 7 8
-1
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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.