Here's a *humerus* joke:

> Why did Papyrus the skeleton go to the store by himself? Because he had *no body* to go with him!

Did you like it? Don't worry, I've got a ton more. A skele-*ton*.

Once upon a time, Papyrus the skeleton went to buy some pasta from the store. The store's inventory is *bare-bones* and they only sell one thing — boxes of uncooked spaghetti! The store always stocks exactly k boxes of pasta, and each box is numbered sequentially from 1 to k. This box number also corresponds to the number of sticks of spaghetti in the box, meaning the first box contains 1 stick, the second box contains 2 sticks, the third box contains 3 sticks, ..., and the k^{th} box contains k sticks. Because they only stock one box of each kind, the store has a *tendon*-cy to sell out of spaghetti.

During each trip to the store, Papyrus likes to buy exactly n sticks of spaghetti by purchasing exactly b boxes (no more, no less). Not sure *which* boxes to purchase, Papyrus calls *Sherlock Bones* for help but he's also stumped! Do you have the *guts* to solve this puzzle?

Given the values of n, k, and b for t trips to the store, determine which boxes Papyrus must purchase during each trip. For each trip, print a single line of b distinct space-separated integers denoting the box number for each box of spaghetti Papyrus purchases (recall that the store only has *one* box of each kind). If it's not possible to buy n sticks of spaghetti by purchasing b boxes, print `-1` instead.

For example, Papyrus wants to purchase $n = 14$ sticks of spaghetti in $b = 3$ boxes and the store has $k = 8$ different box sizes. He can buy boxes of sizes $[8, 4, 2]$, $[7, 5, 2]$, $[7, 6, 1]$ and other combinations. Any of the combinations will work.

Function Description

Complete the *bonetrousle* function in the editor below. It should return an array of integers.

bonetrousle has the following parameter(s):

- *n*: the integer number of sticks to buy
- *k*: the integer number of box sizes the store carries
- *b*: the integer number of boxes to buy

Input Format

The first line contains a single integer t, the number of trips to the store.
Each of the next t lines contains three space-separated integers n, k and b, the number of sticks to buy, the number of boxes for sale and the number of boxes to buy on this trip to the store.

Constraints

- $1 \le t \le 20$
- $1 \le b \le 10^5$
- $1 \le n, k \le 10^{18}$
- $b \le k$

Output Format

For each trip to the store:

- If there is no solution, print `-1` on a new line.
- If there is a solution, print a single line of b distinct space-separated integers where each integer denotes the numbers of noodles in each box that Papyrus must purchase.

If there are multiple possible solutions, *you can print any one of them.* Do not print any leading or trailing spaces or extra newlines.

Sample Input

```
4
12 8 3
10 3 3
```

```
9 10 2
9 10 2
```

Sample Output

```
2 3 7
-1
5 4
1 8
```

Explanation

Papyrus makes the following trips to the store:

1. He wants to buy exactly $b = 3$ boxes of spaghetti and have a total number of $n = 12$ sticks. During this trip, the store has $k = 8$ boxes of spaghetti sticks where the first box has 1 stick, the second box has 2 sticks, the third box has 3 sticks, and so on. One possible solution would be the following:

   

   Papyrus can buy the 2-stick, 3-stick, and 7-stick boxes for the total of $2 + 3 + 7 = 12$ sticks. *Note that this is not the only valid solution; other valid solutions are acceptable.*

2. He wants to buy exactly $b = 3$ boxes of spaghetti and have a total number of $n = 10$ sticks. Because the store only has three boxes in stock containing 1, 2, and 3 sticks of spaghetti, it's not possible for Papyrus to buy n sticks of spaghetti as buying all three boxes would only yield $1 + 2 + 3 = 6$ sticks (which is less than the $n = 10$ that he wanted to purchase). Thus, we print `-1` on a new line.
3. The third and fourth trips to the store both contain the same values ($n = 9$, $k = 10$, $b = 2$). This illustrates that there may be multiple solutions for any given trip to the store and any valid solution is acceptable.