5743. Incremental Memory Leak

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You are given two integers `memory1` and `memory2` representing the available memory in bits on two memory sticks. There is currently a faulty program running that consumes an increasing amount of memory every second.

At the i^{th} second (starting from 1), `i` bits of memory are allocated to the stick with **more available memory** (or from the first memory stick if both have the same available memory). If neither stick has at least `i` bits of available memory, the program **crashes**.

Return *an array containing* `[crashTime, memory1`$_{crash}$`, memory2`$_{crash}$`]` *, where* `crashTime` *is the time (in seconds) when the program crashed and* `memory1`$_{crash}$ *and* `memory2`$_{crash}$ *are the available bits of memory in the first and second sticks respectively*.

User Accepted:	0
User Tried:	0
Total Accepted:	0
Total Submissions:	0
Difficulty:	Medium

Example 1:

```
Input: memory1 = 2, memory2 = 2
Output: [3,1,0]
Explanation: The memory is allocated as follows:
- At the 1st second, 1 bit of memory is allocated to stick 1. The first stick now has 1 bit of available memory.
- At the 2nd second, 2 bits of memory are allocated to stick 2. The second stick now has 0 bits of available mem
- At the 3rd second, the program crashes. The sticks have 1 and 0 bits available respectively.
```

Example 2:

```
Input: memory1 = 8, memory2 = 11
Output: [6,0,4]
Explanation: The memory is allocated as follows:
- At the 1st second, 1 bit of memory is allocated to stick 2. The second stick now has 10 bit of available memor
- At the 2nd second, 2 bits of memory are allocated to stick 2. The second stick now has 8 bits of available mem
- At the 3rd second, 3 bits of memory are allocated to stick 1. The first stick now has 5 bits of available memo
- At the 4th second, 4 bits of memory are allocated to stick 2. The second stick now has 4 bits of available mem
- At the 5th second, 5 bits of memory are allocated to stick 1. The first stick now has 0 bits of available memo
- At the 6th second, the program crashes. The sticks have 0 and 4 bits available respectively.
```

Constraints:

- `0 <= memory1, memory2 <=` $2^{31} - 1$

C++

```
class Solution {
public:
    vector<int> memLeak(int memory1, int memory2) {

    }
};
```