

5891. Find Missing Observations

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You have observations of  $n + m$  **6-sided** dice rolls with each face numbered from 1 to 6.  $n$  of the observations went missing, and you only have the observations of  $m$  rolls. Fortunately, you have also calculated the **average value** of the  $n + m$  rolls.

You are given an integer array `rolls` of length  $m$  where `rolls[i]` is the value of the  $i^{\text{th}}$  observation. You are also given the two integers `mean` and `n`.

Return an array of length  $n$  containing the missing observations such that the **average value** of the  $n + m$  rolls is **exactly** `mean`. If there are multiple valid answers, return *any of them*. If no such array exists, return an empty array.

The **average value** of a set of  $k$  numbers is the sum of the numbers divided by  $k$ .

Note that `mean` is an integer, so the sum of the  $n + m$  rolls should be divisible by  $n + m$ .

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

Example 1:

**Input:** `rolls = [3,2,4,3]`, `mean = 4`, `n = 2`  
**Output:** `[6,6]`  
**Explanation:** The mean of all  $n + m$  rolls is  $(3 + 2 + 4 + 3 + 6 + 6) / 6 = 4$ .

Example 2:

**Input:** `rolls = [1,5,6]`, `mean = 3`, `n = 4`  
**Output:** `[2,3,2,2]`  
**Explanation:** The mean of all  $n + m$  rolls is  $(1 + 5 + 6 + 2 + 3 + 2 + 2) / 7 = 3$ .

Example 3:

**Input:** `rolls = [1,2,3,4]`, `mean = 6`, `n = 4`  
**Output:** `[]`  
**Explanation:** It is impossible for the mean to be 6 no matter what the 4 missing rolls are.

Example 4:

**Input:** `rolls = [1]`, `mean = 3`, `n = 1`  
**Output:** `[5]`  
**Explanation:** The mean of all  $n + m$  rolls is  $(1 + 5) / 2 = 3$ .

Constraints:

- $m == \text{rolls.length}$
- $1 \leq n, m \leq 10^5$
- $1 \leq \text{rolls}[i], \text{mean} \leq 6$

JavaScript

1

2

3

4

5

6

7

8

9

```
/**
 * @param {number[]} rolls
 * @param {number} mean
 * @param {number} n
 * @return {number[]}
 */
var missingRolls = function(rolls, mean, n) {

```