**PROBLEMS**

1. **Minimum Sum**
2. **Stop the explosion.**
3. **Pass the Test**

**Minimum Sum:**

From a list of numbers given, Sunny and Tarun have been given a task to get the minimum sum from a list by performing a special operation by given n number of times. So, find the minimum sum of the list.

**Special operation:**

The operation is performing the division operation by 2 and taking the ceil of that element.

If the element is 5 after performing the operation the answer is 3.

**Input Format:**

No of elements in a list **m**

**m-1** space separated positive integers.

**n** number of operations that have to be performed.

**Output Format:**

Minimum sum of that list.

**Sample Test Cases:**

**Input 1:**

8

4 5 2 3 4 1 9 7

4

**Output:**

24

**Input 2:**

3

10 8 6

6

**Output:**

7

**Choose your event**

In our college there is only one stage for the events to be performed. So only one event can be performed at a time. During a technical event a number of events has been registered for a particular time and duration. Find the number of events that can be performed on the stage.

**Input format:**

No of events **n.**

**n-1** space separated time of starts (only hours)

**n-1** space separated duration of the events.

**Output format:**

Positive integer.

**Sample Testcase:**

**Input 1:**

5

2 4 4 6 8

1 1 4 2 1

**Output:**

4

**Input 2:**

8

1 3 3 3 4 8 10 15

3 1 1 3 2 2 3 4

**Output:**

5

**Max Substring:**

Sunny and Tarun are fighting over a problem to find the alphabetically largest substring in a given string. Help them to find it.

**Input Format:**

String of alphabetical characters.

**Output Format:**

Max sub string

**Sample Test Cases:**

**Input 1:**

banana

**Output:**

nana

**Input 2:**

zackmyzoxwithfivedozenliquorjugs

**Output:**

zoxwithfivedozenliquorjugs

Hello 104,

I welcome you all to this **CODE3000-2.0** round 3 which has 5 challenges in the coming 5 weeks and submission of the code and getting cutoff marks for at least 3 challenges is must and should for proceeding to the further rounds.

This is our 3rd challenge of the round 2 and the link is provided below.

Hacker rank link: [www.hackerrank.com/code3000-2-0](https://www.hackerrank.com/code3000-2-0)

Please do not share this link with those who are not qualified.

**Note**: **As I have said the minimum number of participations should be 3. So, who haven’t participated till now this is the last chance that you could make it to next round. Do please submit your codes to count a participation.**

Think Hard, Code Smart.

Thank You.