

Round E APAC Test 2017

A. Diwali lightings

[B. Beautiful Numbers](#)

[C. Partitioning Number](#)

[D. Sorting Array](#)

Questions asked 3

Submissions

Diwali lightings

5pt	Not attempted 1615/2160 users correct (75%)
8pt	Not attempted 1262/1580 users correct (80%)

Beautiful Numbers

6pt	Not attempted 1429/1592 users correct (90%)
15pt	Not attempted 211/1189 users correct (18%)

Partitioning Number

9pt	Not attempted 646/851 users correct (76%)
17pt	Not attempted 193/470 users correct (41%)

Sorting Array

13pt	Not attempted 5/65 users correct (8%)
27pt	Not attempted 2/2 users correct (100%)

Top Scores

AngryBacon	100
LittleBuger	100
wcswswsws	78
legedexinshi	73
TheTerminalGuy	71
Shaon	71
ajs97	65
thonsi	65
john0312	65
rossSJ TU	65

Problem A. Diwali lightings

This contest is open for practice. You can try every problem as many times as you like, though we won't keep track of which problems you solve. Read the [Quick-Start Guide](#) to get started.

Small input
5 points

Solve A-small

Large input
8 points

Solve A-large

Problem

Diwali is the festival of lights. To celebrate it, people decorate their houses with multi-color lights and burst crackers. Everyone loves Diwali, and so does Pari. Pari is very fond of lights, and has transfinite powers, so she buys an infinite number of red and blue light bulbs. As a programmer, she also loves patterns, so she arranges her lights by infinitely repeating a given finite pattern **S**.

For example, if **S** is BBRB, the infinite sequence Pari builds would be BBRBBRBBBRB...

Blue is Pari's favorite color, so she wants to know the number of blue bulbs between the **I**th bulb and **J**th bulb, inclusive, in the infinite sequence she built (lights are numbered with consecutive integers starting from 1). In the sequence above, the indices would be numbered as follows:

B	B	R	B	B	B	R	B	B	B	R	B	...
1	2	3	4	5	6	7	8	9	10	11	12	

So, for example, there are 4 blue lights between the 4th and 8th positions, but only 2 between the 10th and 12th.

Since the sequence can be very long, she wrote a program to do the count for her. Can you do the same?

Input

The first line of the input gives the number of test cases, **T**. **T** test cases follow. First line of each test case consists of a string **S**, denoting the initial finite pattern. Second line of each test case consists of two space separated integers **I** and **J**, defined above.

Output

For each test case, output one line containing Case #x: y, where x is the test case number (starting from 1) and y is number of blue bulbs between the **I**th bulb and **J**th bulb of Pari's infinite sequence, inclusive.

Limits

$1 \leq T \leq 100$.
 $1 \leq \text{length of } S \leq 100$.
 Each character of **S** is either uppercase B or uppercase R.

Small dataset

$1 \leq I \leq J \leq 10^6$.

Large dataset

$1 \leq I \leq J \leq 10^{18}$.

Sample

Input	Output
3	Case #1: 4
BBRB	Case #2: 2
4 8	Case #3: 500000
BBRB	
10 12	
BR	
1 1000000	

Cases #1 and #2 are explained above.

In Case #3, bulbs at odd indices are always blue, and bulbs at even indices are always red, so there are half a million blue bulbs between positions 1 and 10^6 .

All problem statements, input data and contest analyses are licensed under the [Creative Commons Attribution License](#).

© 2008-2017 Google [Google Home](#) - [Terms and Conditions](#) - [Privacy Policies and Principles](#)

Powered by



Google Cloud Platform