

## **JOUR 1 :**

### **Question 1:**

**La réponse est 1040 .**

To solve this problem i used une chaine de character with a character at the beg either L or R, and then an integer ,to do the circular thing i had to use (le reste de la dévision ) but i used / instead of % wich gave me false results but i did not pay attention and got 1710 .

To know where is the problem I tried GDB but it runs the code itération par itération and this is bad .

when i read the code again I paid attention to the / and replaced it with %.

So the over all idea of the code is to use fscanf to read from the file and since the lines Starts with L and R , which is a Char followed by an integer and i did a test to make sure that all lines have this syntax by the number of parameters which is 2 .

and then i test if its L we sub from the previous pos and if it is R we add the value, and to make sure were always inside the circle we simply use the % ,

to count the number of zeros i initialized le compteur zero\_passes to zero and increment it inside the if.

At the end we just print the number of zeros.

### **Question 2:**

**THE RESULT IS 6027.**

The idea in the second question is to count the number of zeros with the while loop to check every time if we passed by zero or not .

at first i thought of using the test if the final position is bigger than 99 then we will for sure pass by zero and if it is negative then we will for sure pass by zero the problem is when L and R have numbers bigger than 99 in this cas we will have more than one round and it means will will pass by zero multiple times so i changed my idea and thought of using the moves that will take initially the value of the the integer next to L or R and while this integer is positive we use the previous position and increment it whenever it reaches 99 means one round is done and one zero is added to number of zeros and pos will be zero again and we increment it.

It's like we have a cup of water that already has water in it and we want to count the number of times the cup is filled with water and we empty it again . The simplest way is to add one by one and restart the pos everytime the pos reaches 99 its right after it where we have a zero (we passed by it or we stopped at it ) so we increment zero\_passes.

## JOUR 2 :

### Question 1:

**La réponse est 350975 .**

So my idea for this question is : to know if a number is invalid first thing we need to check is number of digits if it was "pair" then we check if its doubled or not because if the number of digits is even no need to check we can do this by converting the number into a string and use the strlen to know the number of digits .

to know if it is doubled or not my idea was : the number is already a string so we have to split it into two splits and check for each block if  $s[i] = s[\text{len}/2 + i]$  it takes no diff digit to quit and return a bool( 0 for false and 1 for true ) .

and the idea to run the intervals i thought to simply start by a and check for each nbr in between a and b . Well this makes us run all the numbers when sometimes we can skip some intervals as an example between 100 and 999. We know there is no number invalid (with my human mind) but i dont have much time to code it .