Analysis for task "Board"

The first thing we can see is that the number of plank pieces we can cut depends only on the length of the rotten parts.

Lets say we have saved the beginning and ending of the rotten parts in an array in the same arrangement as they are in the output. Because they are given sorted, we can iterate over the board by just iterating the array.

Let us do the iteration while tracking two things on each step:

- prevEnd = the end of the previous rotten part

- answ = the number of planks we have cut so far

Both are initialized to 0.

The length of the non-rotten part between the i-th and the (i+1)-th rotten is equal to D = Bi - prevEnd. We can obtain the number of planks we can cut with the integer division D / K. All that is left to do is update the variables we are tracking:

D = Bi - prevEnd;

answ += D / K;

prevEnd = Bi + Li;

The first element of the iteration will give us the number of planks we can cut from the part between the beginning of the board and the first rotten part. So all that is left to check is the part between the last rotten part and the end of the board.

D = N - prevEnd;

answ += D / K;

In the end the variable answ will hold the answer to the task.

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