

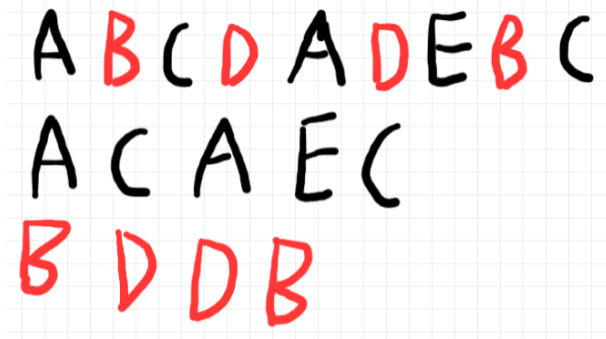
# Explain Codeforce Solution 2086/D

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## 1 Idead of the solution

We can split every solution in 2 subsolution, so in order to calculate the solution we can first compute the subsolution and then multiplt them.



A B C D A D E B C  
A C A E C  
B D D B

Considering a descending array like  $arr = 6, 3, 2, 1$  corresponding for example to the letters 'a', 'g', 'z', 'f' we can first decide that all the 'a' should go in the first subarray and the other in the second. we make this computing in a tree all the binary string  $arr1$  and  $arr2$  such that  $arr * arr1 = arr * arr2$  ( we want this condition in order to create a correct string array from the 2 sub string array). Then for every  $arr1$  and  $arr2$  we can calculate all the combination. for example  $arr1 = 1, 0, 0, 0$  mean that all the 'a' stay in the same subarray, we have only one combination, and  $0, 1, 1, 1$  mean that 'g', 'z', 'f' stay in the other subarray, 30 combination. There are some difference if the length of the phrase is odd.