Task-01

To get an efficient solution to find out the short alien on the right side of the tall alien, I use the merge sort concept. In the merge sort concept, I change a bit where I take a variable called count and call it in the counting function as a global variable. Then I add the short alien count in the count variable by checking them.

Task-02

In this task, I try to find the value on three sides of the array. One is on the left side of the array, another is on the right side, and the other is on the mid side of the array. To find the left side and right side, I use recursion and for the mid side of the array, I use max function and loop. By doing this, I get the desired value which I want.

Task-03

In this task, I follow the algorithm which is given and also do some modifications according to my code by which I get an ascending order sorted array/list.

Task-04

I write the partition code here as I wrote in the quick sort. Then I write a “findK” function. I get an index from the partition function which I compare by the given K and if K is equal to the index which I get from the partition then we get the desired value otherwise I have to search on the left or right side of the list/array recursively.