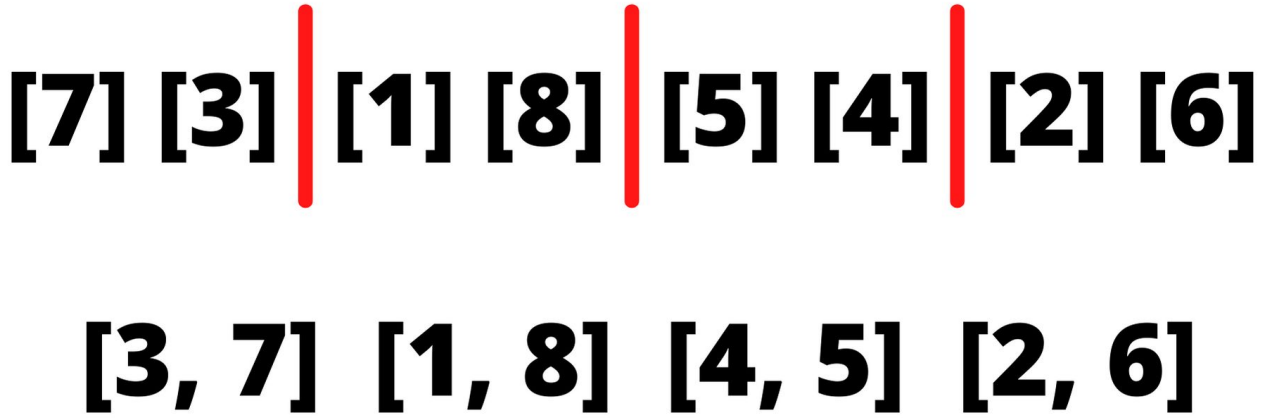
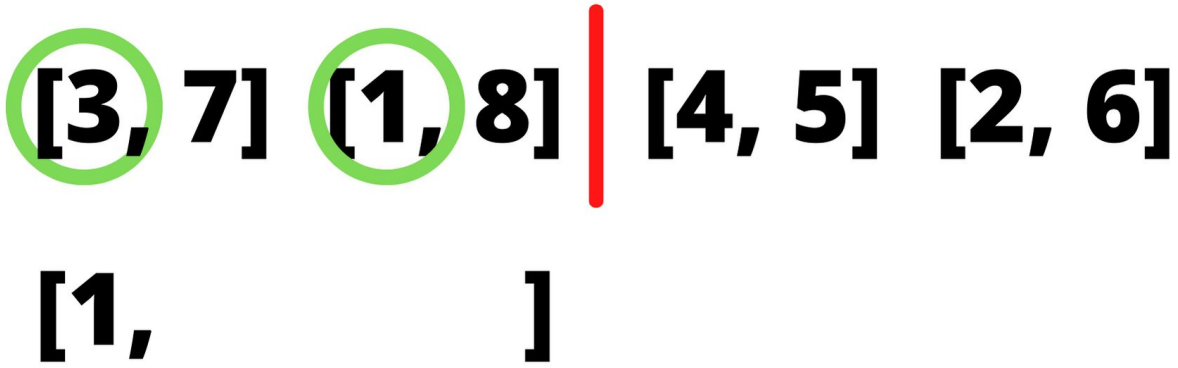
We chop the array in half until each number is in its own array

[7, 3, 1, 8, 5, 4, 2, 6]

[7] [3] [1] [8] [5] [4] [2] [6]



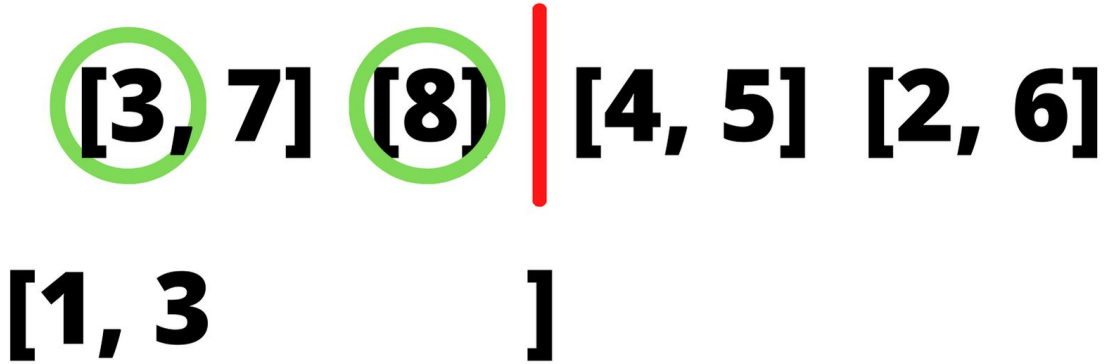
We compare two at a time between the first element of the left and right array. Whichever number is greater will be appended to the new array



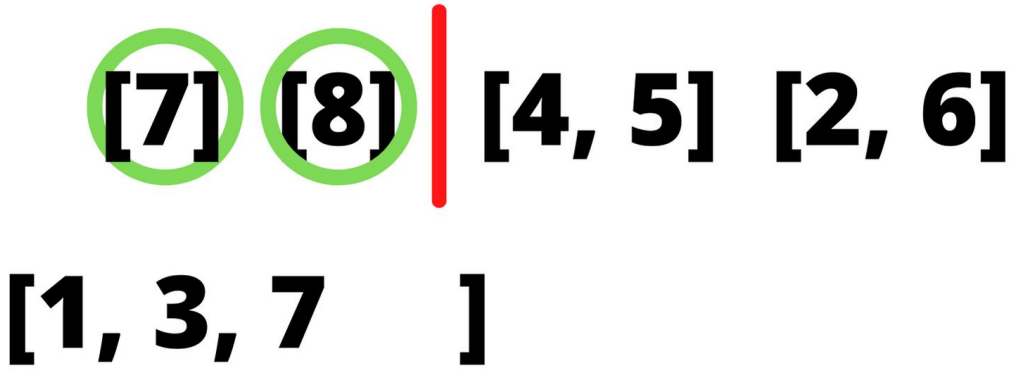
We continue to do this process of comparing the first index of each array.

The lower number will be removed then be appended to the new array

Comparing 3 and 8

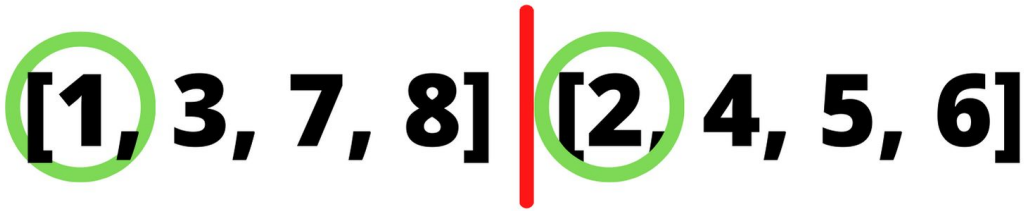


Comparing 7 and 8



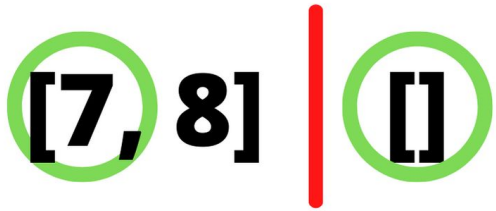
When comparing the array to an empty one just append the rest of the array.

[1, 3, 7, 8]



Did it for the right hand side and resulted into this.

We then continue to do the process of merging the array again.



[1, 2, 3, 4, 5, 6,]

We eventually get down to this comparing a fill array to an empty one where we will again just simply append the rest of the array

Fin

[1, 2, 3, 4, 5, 6, 7, 8]