

Q1. Given an array of integers, rearrange the elements such that all the **even** numbers come before the **odd** numbers, and the **even** numbers are sorted in **ascending** order while the **odd** numbers are sorted in **descending** order. You can use any one of the sorting algorithms taught in the class that you prefer for sorting. (7 Marks)

Sample Input: [1, 2, 4, 3, 5, 6]

Sample Output: [2, 4, 6, 5, 3, 1]

Q2. Given an array of integers, find the element that appears the most number of times. If there are more than one element that appears the most number of times, then print any one of them. (8 Marks)

Sample Input: [ 3, 4, 2, 4, 4, 2, 4, 4, 6 ]

Sample Output: 4