Complete all the questions with in (3 Hours).

Note : Don't use any inbuilt methods like (.sort, .length, Math., etc…).
For : Question No. 3 & 5 you may use .charAt() method.

1. The given array and the power is arr and pow. Sort the given array and power the elements with the pow.

   Examples :

   Input : arr = [1, 2, 3, 4, 5]
   pow = 3
   Output : [1, 8, 27, 64, 125]

   Input : arr = [-2, 1, 3, 4, 5]
   pow = 2
   Output : [1, 4, 9, 16, 25]

   Input : arr = [-19, -11, -3, 1, 2, 4, 6, 18]
   pow = 2
   Output : ?

2. Find which is the nearest number in this array of average.

   Example :

   Input : Array Elements is : [1, 2, 3, 4, 5]
   Output : The element is : 3

   Input : Array Elements is : [1, 8, 2, 10]
   Output : The element is : 8

3. Given two string of same length, print the characters which does not match in the two.

   Example :

   Input : String 1 = "abcd**efeg**hijk**l**m"
   String 2 = "abcd**uabi**hijk**i**m"
   Output : Result = "eufaebgili"

4. Print the given number in to this Pattern.
Note : Use only Ternary Operator for logic.

Example :

Input : Enter the value : 3
Output : 3 3 3 3 3
3 2 2 2 3
3 2 1 2 3
3 2 2 2 3
3 3 3 3 3

5. Given a String we have to reverse the string without changing the position of special characters, punctuations and spaces.

Example :

Input : House No : 123@ CBE
Output : EBC32 1o : Nes@ uoH

6. For a given array of size N, reverse every sub-array formed by consecutive K element.
Note : Don't use extra space.

Examples :

Input : N = 9
arr = [1, 2, 3, 4, 5, 6, 7, 8, 9]
k = 3
Output : arr = [3, 2, 1, 6, 5, 4, 9, 8, 7]

Input : N = 8
arr = [1, 2, 3, 4, 5, 6, 7, 8]
k = 5
Output : arr = [5, 4, 3, 2, 1, 8, 7]

Input : N = 8
arr = [1, 2, 3, 4, 5, 6, 7, 8]
k = 10
Output : arr = [8, 7, 6, 5, 4, 3, 2, 1]

7. An array of size N is processed in such a way that each number in the array can only hold value in the order of 2 ^ n. If a particular position holds an excess value it is passed on to the next position in the array. This way print the maximum value each position can hold and the excess value at the last position.

Examples :

Input : N = 5
arr = [12, 25, 10, 7, 8]
Output : Maximum value at each position is : [8, 16, 16, 8, 8]
Excess value at last position : 6
Input : N = 5
arr = [39, 121, 12, 23, 8]
Output : Maximum value at each position is : [32, 128, 8, 16, 16]
Excess value at last position : 6