

## Video Link

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### Easy

1. [Build Array from Permutation](#)
2. [Concatenation of Array](#)
3. [Running Sum of 1d Array](#)
4. [Richest Customer Wealth](#)
5. [Shuffle the Array](#)
6. [Kids With the Greatest Number of Candies](#)
7. [Number of Good Pairs](#)
8. [How Many Numbers Are Smaller Than the Current Number](#)
9. [Create Target Array in the Given Order](#)
10. [Check if the Sentence Is Pangram](#)
11. [Count Items Matching a Rule](#)
12. [Find the Highest Altitude](#)
13. [Flipping an Image](#)
14. [Cells with Odd Values in a Matrix](#)
15. [Matrix Diagonal Sum](#)

16. [Find Numbers with Even Number of Digits](#)
17. [Transpose Matrix](#)
18. [Add to Array-Form of Integer](#)
19. [Maximum Population Year](#)
20. [Determine Whether Matrix Can Be Obtained By Rotation](#)
21. [Two Sum](#)
22. [Find N Unique Integers Sum up to Zero](#)
23. [Lucky Number In a Matrix](#)
24. [Maximum Subarray](#)
25. [Reshape the Matrix](#)
26. [Plus One](#)
27. [Remove Duplicates from Sorted Array](#)
28. [Minimum Cost to Move Chips to The Same Position](#)

## Medium

1. [Spiral Matrix](#)
2. [Spiral Matrix II](#)
3. [Spiral Matrix III](#)
4. [Set Matrix Zeroes](#)
5. [Product of Array Except Self](#)
6. [Find First and Last Position of Element in Sorted Array](#)
7. [Jump Game](#)

## Medium

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2. [Spiral Matrix II](#)
3. [Spiral Matrix III](#)
4. [Set Matrix Zeroes](#)
5. [Product of Array Except Self](#)
6. [Find First and Last Position of Element in Sorted Array](#)
7. [Jump Game](#)
8. [Rotate Array](#)
9. [Sort Colors](#)
10. [House Robber](#)

## Hard

1. [Max Value of Equation](#)
2. [First Missing Positive](#)
3. [Good Array](#)

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1. Build Array from permutation

Given a **zero-based permutation** **nums** (**0-indexed**), build an array **ans** of the **same length** where **ans[i] = nums[nums[i]]** for each  $0 \leq i < \text{nums.length}$  and return it.

**Input:** `nums = [0,2,1,5,3,4]`

**Output:** `[0,1,2,4,5,3]`

**Explanation:** The array **ans** is built as follows:

`ans = [nums[nums[0]], nums[nums[1]], nums[nums[2]], nums[nums[3]], nums[nums[4]], nums[nums[5]]]`

`= [nums[0], nums[2], nums[1], nums[5], nums[3], nums[4]]`

`= [0,1,2,4,5,3]`

```
class Solution {
```

```
    public int[] buildArray(int[] nums) {
```

```
        int len=nums.length;
```

```
        int [] ans=new int[len];
```

```
        for(int i=0;i<len;i++){
```

```
            ans[i]=nums[nums[i]];
```

```
        }
```

```
        return ans;
```

```
    }
```

```
}
```

1. Concatenation of Arrays

Given an integer array **nums** of length **n**, you want to create an array **ans** of length **2n** where **ans[i] == nums[i]** and **ans[i + n] == nums[i]** for  $0 \leq i < n$

**Input:** nums = [1,2,1]

**Output:** [1,2,1,1,2,1]

**Explanation:** The array ans is formed as follows:

- ans = [nums[0],nums[1],nums[2],nums[0],nums[1],nums[2]]

- ans = [1,2,1,1,2,1]

```
class Solution {  
  
    public int[] getConcatenation(int[] nums) {  
  
        int len = nums.length;  
  
        int[] ans = new int[2 * len];  
  
        for (int i = 0; i < len; i++) {  
  
            ans[i] = nums[i]; // Copy first half  
  
            ans[i + len] = nums[i]; // Copy second half  
  
        }  
  
        return ans;  
  
    }  
}
```

#### 1. Running sum of 1D Array

**Input:** nums = [1,2,3,4]

**Output:** [1,3,6,10]

**Explanation:** Running sum is obtained as follows: [1, 1+2, 1+2+3, 1+2+3+4].

```
class Solution {  
  
    public int[] runningSum(int[] nums) {  
  
        int len = nums.length;  
  
        int[] ans = new int[len];  
  
        ans[0] = nums[0];  
  
        for (int i = 1; i < len; i++) {  
  
            ans[i] = ans[i - 1] + nums[i];  
  
        }  
  
        return ans;  
  
    }  
}
```

#### 1. Richest Customer Wealth

**Input:** accounts = [[1,2,3],[3,2,1]]

**Output:** 6

**Explanation:**

1st customer has wealth = 1 + 2 + 3 = 6

2nd customer has wealth = 3 + 2 + 1 = 6

Both customers are considered the richest with a wealth of 6 each, so return 6

```
class Solution {
```

```

public int maximumWealth(int[][] accounts) {
    int len=accounts.length;

    int max=1;

    for(int i=0;i<len;i++){

        int sum=0;

        for(int j=0;j<accounts[i].length;j++){

            sum+=accounts[i][j];

        }

        if(sum>max){

            max=sum;

        }

    }

    return max;

}

```

1. Shuffle the array

**Input:** nums = [2,5,1,3,4,7], n = 3

**Output:** [2,3,5,4,1,7]

**Explanation:** Since  $x_1=2$ ,  $x_2=5$ ,  $x_3=1$ ,  $y_1=3$ ,  $y_2=4$ ,  $y_3=7$  then the answer is [2,3,5,4,1,7].

```

class Solution {
    public int[] shuffle(int[] nums, int n) {
        int[] ans = new int[n << 1];

        for (int i = 0, j = 0; i < n; ++i) {

            ans[j++] = nums[i];

            ans[j++] = nums[i + n];

        }

        return ans;

    }
}

```

1. Kids with greater number of candies

**Input:** candies = [2,3,5,1,3], extraCandies = 3

**Output:** [true,true,true,false,true]

**Explanation:** If you give all extraCandies to:

- Kid 1, they will have  $2 + 3 = 5$  candies, which is the greatest among the kids.
- Kid 2, they will have  $3 + 3 = 6$  candies, which is the greatest among the kids.
- Kid 3, they will have  $5 + 3 = 8$  candies, which is the greatest among the kids.
- Kid 4, they will have  $1 + 3 = 4$  candies, which is not the greatest among the kids.
- Kid 5, they will have  $3 + 3 = 6$  candies, which is the greatest among the kids.

```

class Solution {

```

```

public List<Boolean> kidsWithCandies(int[] candies, int extraCandies) {
    List<Boolean> result = new ArrayList<>();

    int max = 0;

    for (int i = 0; i < candies.length; i++) {
        if (candies[i] > max) {
            max = candies[i];
        }
    }

    for (int i = 0; i < candies.length; i++) {
        if (candies[i] + extraCandies >= max) {
            result.add(true);
        }
        else {
            result.add(false);
        }
    }

    return result;
}
}

```

#### 1. Number of good pair

Given an array of integers nums, return the number of *good pairs*.

A pair (i, j) is called good if  $\text{nums}[i] == \text{nums}[j]$  and  $i < j$ .

#### Example 1:

**Input:**  $\text{nums} = [1,2,3,1,1,3]$

**Output:** 4

**Explanation:** There are 4 good pairs (0,3), (0,4), (3,4), (2,5) 0-indexed.

```

class Solution {
    public int numIdenticalPairs(int[] nums) {
        int count=0;

        for(int i=0;i<nums.length;i++){
            for(int j=0;j<nums.length;j++){
                if(nums[i]==nums[j] && i<j){
                    count++;
                }
            }
        }

        return count;
    }
}

```

1. How many numbers are smaller than current number

Given the array nums, for each nums[i] find out how many numbers in the array are smaller than it. That is, for each nums[i] you have to count the number of valid j's such that j != i **and** nums[j] < nums[i].

Return the answer in an array.

```
class Solution {  
  
    public int[] smallerNumbersThanCurrent(int[] nums) {  
  
        int[] ans = new int[nums.length];  
  
        for(int i=0;i<nums.length;i++){  
  
            int count=0;  
  
            for(int j=0;j<nums.length;j++){  
  
                if(j!=i && nums[j]<nums[i]){  
  
                    count++;  
  
                }  
  
            }  
  
            ans[i]=count;  
  
        }  
  
        return ans;  
  
    }  
  
}
```

}

1. Create target in given order
2. **Input:** nums = [0,1,2,3,4], index = [0,1,2,2,1]
3. **Output:** [0,4,1,3,2]
4. **Explanation:**
5. nums index target
6. 0 0 [0]
7. 1 1 [0,1]
8. 2 2 [0,1,2]
9. 3 2 [0,1,3,2]
10. 4 1 [0,4,1,3,2]

```
class Solution {  
  
    public int[] createTargetArray(int[] nums, int[] index) {  
  
        int n = nums.length;  
  
        ArrayList<Integer>List = new ArrayList<>(n);  
  
        for (int i=0; i<n ; i++){  
  
            List.add(index[i],nums[i]);  
  
        }  
  
        for (int i=0; i<n; i++){  
  
            nums[i] = List.get(i);  
  
        }  
  
        return nums;  
  
    }  
  
}
```

}

10. The sentence is pangram

**Input:** sentence = "thequickbrownfoxjumpsoverthelazydog"

**Output:** true

**Explanation:** sentence contains at least one of every letter of the English alphabet.

```
class Solution {  
  
    public boolean checkIfPangram(String sentence) {  
  
        if(sentence.length()<26){  
  
            return false;  
  
        }  
  
        boolean[] present = new boolean[26];  
  
        for(int i=0;i<sentence.length();i++){  
  
            int letter = sentence.charAt(i) - 'a';  
  
            present[letter] = true;  
  
        }  
  
        for(int i=0;i<26;i++){  
  
            if(!present[i]){  
  
                return false;  
  
            }  
  
        }  
  
        return true;  
  
    }  
  
}
```