

Striver sheet

Week 1:

Payment Gateway to SMA... Speedtest by Ookla... (57) WhatsApp... WEEK.pdf... Striver's SDE Sheet - Top C... (5) Pascal's Triangle - L... (5) Set Matrix Zeroes - Leet... +

leetcodes.com/problems/pascals-triangle/

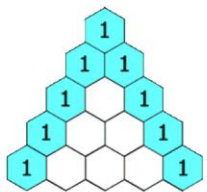
LeetCode Explore Problems Interview Contest Discuss Store

118. Pascal's Triangle

Easy 6506 226 Add to List Share

Given an integer `numRows`, return the first `numRows` of Pascal's triangle.

In Pascal's triangle, each number is the sum of the two numbers directly above it as shown:



Example 1:

Input: `numRows = 5`

Output: `[[1],[1,1],[1,2,1],[1,3,3,1],[1,4,6,4,1]]`

Example 2:

Input: `numRows = 1`

Output: `[[1]]`

```
1 * class Solution:
2 *     def generate(self, numRows: int) -> List[List[int]]:
3 *
4 *         res = [[1]] # First Row
5 *
6 *         for i in range(numRows-1):
7 *             temp = [0] + res[i] + [0] # Add [0] to keep the length of the next row same
8 *             row = []
9 *             for j in range(len(res[i])+1): # The Number of Rows keeps on increasing by 1
10 *                 row.append(temp[j] + temp[j+1])
11 *             res.append(row)
12 *
13 *         return res
14 *
```

Testcase Run Code Result Debugger

Accepted Runtime: 48 ms

Your input 5

Output `[[1],[1,1],[1,2,1],[1,3,3,1],[1,4,6,4,1]]` Diff

Expected `[[1],[1,1],[1,2,1],[1,3,3,1],[1,4,6,4,1]]`

Console Use Example Testcases Run Code Submit

Payment Gateway to SMA... Speedtest by Ookla... (57) WhatsApp... WEEK.pdf... Striver's SDE Sheet - Top C... (5) Next Permuta... (5) Next Permuta... (5) Pascal's Triangle... (5) Set Matrix Zero...

leetcodes.com/problems/next-permutation/

LeetCode Explore Problems Interview Contest Discuss Store

31. Next Permutation

Medium 11758 3599 Add to List Share

A **permutation** of an array of integers is an arrangement of its members into a sequence or linear order.

- For example, for `arr = [1,2,3]`, the following are considered permutations of `arr`: `[1,2,3]`, `[1,3,2]`, `[3,1,2]`, `[2,3,1]`.

The **next permutation** of an array of integers is the next lexicographically greater permutation of its integer. More formally, if all the permutations of the array are sorted in one container according to their lexicographical order, then the **next permutation** of that array is the permutation that follows it in the sorted container. If such arrangement is not possible, the array must be rearranged as the lowest possible order (i.e., sorted in ascending order).

- For example, the next permutation of `arr = [1,2,3]` is `[1,3,2]`.
- Similarly, the next permutation of `arr = [2,3,1]` is `[3,1,2]`.
- While the next permutation of `arr = [3,2,1]` is `[1,2,3]` because `[3,2,1]` does not have a lexicographical larger rearrangement.

Given an array of integers `nums`, find the next permutation of `nums`.

The replacement must be **in place** and use only constant extra memory.

Example 1:

Input: `nums = [1,2,3]`

Output: `[1,3,2]`

```
1 * class Solution:
2 *     def nextPermutation(self, nums: List[int]) -> None:
3 *         """
4 *         Do not return anything, modify nums in-place instead.
5 *         """
6 *         def swap(a,b):
7 *             nums[a],nums[b] = nums[b],nums[a]
8 *             return
9 *         def reverse(i):
10 *             nums[i:] = nums[i::-1]
11 *
12 *         if len(nums) <= 1:
13 *             return
14 *         j = len(nums)-1
15 *         while(j>0 and nums[j-1] >= nums[j]):
16 *             j-=1
17 *         while(j>0):
18 *             i = j+1
19 *             while(i<len(nums) and nums[j]>nums[i]):
20 *                 i+=1
21 *             swap(j,i)
22 *             reverse(j+1)
```

Testcase Run Code Result Debugger

Accepted Runtime: 54 ms

Your input `[1,2,3]`

Output `[1,3,2]` Diff

Expected `[1,3,2]`

Console Use Example Testcases Run Code Submit

Payment Gate... Speedtest by (57) WhatsApp WEEK.pdf Striver's SDE (5) Maxim (5) Maximum (5) Next Perm (5) Next Perm (5) Pascal's Tri (5) Set Matrix +

Devsnest 0 Gmail YouTube Maps OpenD ReadJ & Re... Most Soothing Bhaj... Dashboard - My Pr... Activity - Home ... 65 15:36 Now play... morgan intership Goldman Sachs

LeetCode Explore Problems Interview Contest Discuss Store

LeetCode is hiring! Apply NOW. Premium

53. Maximum Subarray

Medium 22780 1110 Add to List Share

Given an integer array `nums`, find the contiguous subarray (containing at least one number) which has the largest sum and return its sum.

A **subarray** is a **contiguous** part of an array.

Example 1:

Input: `nums = [-2,1,-3,4,-1,2,1,-5,4]`
Output: 6
Explanation: `[4,-1,2,1]` has the largest sum = 6.

Example 2:

Input: `nums = [1]`
Output: 1

Example 3:

Input: `nums = [5,4,-1,7,8]`
Output: 23

Python3

```
1 class Solution:
2     def maxSubArray(self, nums: List[int]) -> int:
3         s=0
4         m=0
5         p=max(nums)
6         if p<0:
7             return p
8         for i in range(len(nums)):
9             s+=nums[i]
10            if s>m:
11                m=s
12            if s<0:
13                s=0
14        return m
```

Testcase Run Code Result Debugger

Accepted Runtime: 44 ms

Your input `[-2,1,-3,4,-1,2,1,-5,4]`

Output 6

Expected 6

Diff

Console Use Example Testcases Run Code Submit

Payment Gate... Speedtest by (57) WhatsApp WEEK.pdf Striver's SDE (5) Sort Co (5) Maxim (5) Maximum (5) Next Perm (5) Next Perm (5) Pascal's Tri (5) Set Ma +

Devsnest 0 Gmail YouTube Maps OpenD ReadJ & Re... Most Soothing Bhaj... Dashboard - My Pr... Activity - Home ... 65 15:36 Now play... morgan intership Goldman Sachs

LeetCode Explore Problems Interview Contest Discuss Store

LeetCode is hiring! Apply NOW. Premium

75. Sort Colors

Medium 10971 432 Add to List Share

Given an array `nums` with `n` objects colored red, white, or blue, sort them **in-place** so that objects of the same color are adjacent, with the colors in the order red, white, and blue.

We will use the integers `0`, `1`, and `2` to represent the color red, white, and blue, respectively.

You must solve this problem without using the library's sort function.

Example 1:

Input: `nums = [2,0,2,1,1,0]`
Output: `[0,0,1,1,2,2]`

Example 2:

Input: `nums = [2,0,1]`
Output: `[0,1,2]`

Constraints:

- `n == nums.length`

Python3

```
1 class Solution:
2     def sortColors(self, n: List[int]) -> None:
3         t=0
4         for i in range(len(n)):
5             for j in range(i+1,len(n)):
6                 if(n[i]>n[j]):
7                     t=n[i]
8                     n[i]=n[j]
9                     n[j]=t
10
11        print(n)
12
```

Testcase Run Code Result Debugger

Accepted Runtime: 52 ms

Your input `[2,0,2,1,1,0]`

stdout `[0, 0, 1, 1, 2, 2]`

Output `[0,0,1,1,2,2]`

Expected `[0,0,1,1,2,2]`

Diff

Console Use Example Testcases Run Code Submit

Payment Gateway to SMASH | Speedtest by Ookla - The Globa... | (57) WhatsApp | Striver's SDE Sheet - Top Code... | (5) Set Matrix Zeroes - Leet... | (5) Set Matrix Zeroes - Submissi...

leetcod.com/problems/best-time-to-buy-and-sell-stock/

LeetCode Explore Problems Interview Contest Discuss Store

121. Best Time to Buy and Sell Stock

Easy 17919 581 Add to List Share

You are given an array `prices` where `prices[i]` is the price of a given stock on the i^{th} day.

You want to maximize your profit by choosing a **single day** to buy one stock and choosing a **different day in the future** to sell that stock.

Return the **maximum profit** you can achieve from this transaction. If you cannot achieve any profit, return `0`.

Example 1:

Input: `prices = [7,1,5,3,6,4]`
Output: `5`
Explanation: Buy on day 2 (price = 1) and sell on day 5 (price = 6), profit = 6 - 1 = 5.
Note that buying on day 2 and selling on day 1 is not allowed because you must buy before you sell.

Example 2:

Input: `prices = [7,6,4,3,1]`
Output: `0`
Explanation: In this case, no transactions are done and the max profit = 0.

```

1 class Solution:
2     def maxProfit(self, prices: List[int]) -> int:
3         maxi=0
4         mini=100000
5         for i in range(len(prices)):
6             if prices[i]<mini:
7                 mini=prices[i]
8             if maxi<prices[i]-mini:
9                 maxi=prices[i]-mini
10        return maxi

```

Testcase Run Code Result Debugger

Accepted Runtime: 55 ms

Your input `[7,1,5,3,6,4]`

Output `5` Diff

Expected `5`

Console Use Example Testcases Run Code Submit

Payment Gateway to SMASH | Speedtest by Ookla - The Globa... | (57) WhatsApp | Striver's SDE Sheet - Top Code... | (5) Set Matrix Zeroes - Leet... | (5) Set Matrix Zeroes - Submissi...

leetcod.com/problems/set-matrix-zeroes/

LeetCode Explore Problems Interview Contest Discuss Store

73. Set Matrix Zeroes

Medium 8081 518 Add to List Share

Given an $m \times n$ integer matrix `matrix`, if an element is `0`, set its entire row and column to `0`'s.

You must do it in place.

Example 1:

1	1	1
1	0	1
1	1	1

→

1	0	1
0	0	0
1	0	1

Input: `matrix = [[1,1,1],[1,0,1],[1,1,1]]`
Output: `[[1,0,1],[0,0,0],[1,0,1]]`

Example 2:

0	1	2	0
0	0	0	0

→

0	0	0	0
0	0	0	0

```

1 class Solution:
2     def setZeroes(self, mat: List[List[int]]) -> None:
3         m=len(mat),len(mat[0])
4         row,col=set(),set()
5
6         for i in range(m):
7             for j in range(n):
8                 if mat[i][j]==0:
9                     row.add(i)
10                    col.add(j)
11
12        for i in row:
13            for j in range(n):
14                mat[i][j]=0
15
16        for i in col:
17            for j in range(m):
18                mat[j][i]=0
19        return mat
20

```

Testcase Run Code Result Debugger

Accepted Runtime: 40 ms

Your input `[[1,1,1],[1,0,1],[1,1,1]]`

Output `[[1,0,1],[0,0,0],[1,0,1]]` Diff

Expected `[[1,0,1],[0,0,0],[1,0,1]]`

Console Use Example Testcases Run Code Submit