

1342. Number of Steps to Reduce a Number to Zero

Easy 2498 133 Add to List Share

Given an integer `num`, return the number of steps to reduce it to zero.

In one step, if the current number is even, you have to divide it by 2, otherwise, you have to subtract 1 from it.

Example 1:

Input: num = 14
Output: 6
Explanation:

- Step 1) 14 is even; divide by 2 and obtain 7.
- Step 2) 7 is odd; subtract 1 and obtain 6.
- Step 3) 6 is even; divide by 2 and obtain 3.
- Step 4) 3 is odd; subtract 1 and obtain 2.
- Step 5) 2 is even; divide by 2 and obtain 1.
- Step 6) 1 is odd; subtract 1 and obtain 0.

```
1 class Solution:
2     def numberOfSteps (self, num: int) -> int:
3         ans = 0
4         while num > 0:
5             if num % 2: num -= 1
6             else: num /= 2
7             ans += 1
8         return ans
```

Testcase	Run Code Result	Debugger
Accepted Runtime: 47 ms		
Your input	14	
Output	6	Diff
Expected	6	

1450. Number of Students Doing Homework at a Given Time

Easy 615 134 Add to List Share

Given two integer arrays `startTime` and `endTime` and given an integer `queryTime`.

The i th student started doing their homework at the time `startTime[i]` and finished it at time `endTime[i]`.

Return the number of students doing their homework at time `queryTime`. More formally, return the number of students where `queryTime` lays in the interval `[startTime[i], endTime[i]]` inclusive.

Example 1:

Input: `startTime = [1,2,3]`, `endTime = [3,2,7]`, `queryTime = 4`

Output: 1

Explanation: We have 3 students where:

- The first student started doing homework at time 1 and finished at time 3 and wasn't doing anything at time 4.
- The second student started doing homework at time 2 and finished at time 2 and also wasn't doing anything at time 4.

```
1 class Solution:
2     def busyStudent(self, startTime, endTime, queryTime):
3         ans=0
4         m=zip(startTime, endTime)
5         for s, e in m:
6             if s<=queryTime<=e:
7                 ans+=1
8         return ans
```

Testcase Run Code Result Debugger

Accepted Runtime: 38 ms

Your input `[1,2,3]`
`[3,2,7]`

Output 1

Expected 1

Diff

Description Solution Discuss (677) Submissions

Python3 Autocomplete

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1395. Count Number of Teams

Medium 2072 165 Add to List Share

There are n soldiers standing in a line. Each soldier is assigned a **unique** rating value.

You have to form a team of 3 soldiers amongst them under the following rules:

- Choose 3 soldiers with index (i, j, k) with rating $(rating[i], rating[j], rating[k])$.
- A team is valid if: $(rating[i] < rating[j] < rating[k])$ or $(rating[i] > rating[j] > rating[k])$ where $(0 \leq i < j < k < n)$.

Return the number of teams you can form given the conditions. (soldiers can be part of multiple teams).

Example 1:

Input: rating = [2,5,3,4,1]

Output: 3

Explanation: We can form three teams given the conditions. (2,3,4), (5,4,1), (5,3,1).

```
1 class Solution:
2     def numTeams(self, rating: List[int]) -> int:
3         n=len(rating)
4         res=0
5         for j in range(1,n-1):
6             lt=sum(rating[i]<rating[j] for i in range(j))
7             gt=sum(rating[j]<rating[k] for k in range(j,n))
8             res+=lt*gt+(j-lt)*(n-j-gt-1)
9         return res
```

Testcase Run Code Result Debugger

Accepted Runtime: 38 ms

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

Output 3

Diff

Expected 3

Problems

Pick One

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1395/2360

Next >

Console

Use Example Testcases

Run Code

Submit

1464. Maximum Product of Two Elements in an Array

Easy 1106 162 Add to List Share

Given the array of integers `nums`, you will choose two different indices `i` and `j` of that array. Return the maximum value of $(nums[i]-1)*(nums[j]-1)$.

Example 1:

Input: `nums = [3,4,5,2]`
 Output: 12
 Explanation: If you choose the indices `i=1` and `j=2` (indexed from 0), you will get the maximum value, that is, $(nums[1]-1)*(nums[2]-1) = (4-1)*(5-1) = 3*4 = 12$.

Example 2:

Input: `nums = [1,5,4,5]`
 Output: 16
 Explanation: Choosing the indices `i=1` and `j=3` (indexed from 0), you will get the maximum value of $(5-1)*(5-1) = 16$.

```
1 class Solution:
2     def maxProduct(self, nums):
3         l=len(nums)
4         nums=sorted(nums,reverse=True)
5         return (nums[0]-1)*(nums[1]-1)
```

Testcase Run Code Result Debugger

Accepted Runtime: 42 ms

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

Output `12` Diff

Expected `12`