

1. Def odd\_string\_out(words):

def get\_diff\_array(word):

return [ord(word[i+1]) - ord(word[i]) for i in range(len(word) - 1)]

diff\_arrays = [get\_diff\_array(word) for word in words]

for i in range(len(words)):

if diff\_arrays.count(diff\_arrays[i]) == 1:

return words[i]

return None

print(odd\_string\_out(["adc", "wzy", "abc"]))

2. def words\_within\_two\_edits(queries, dictionary):

def is\_within\_two\_edits(word1, word2):

if len(word1) != len(word2):

return False

edits = sum(1 for a, b in zip(word1, word2) if a != b)

return edits <= 2

result = []

for query in queries:

if any(is\_within\_two\_edits(query, word) for word in dictionary):

result.append(query)

return result

print(words\_within\_two\_edits(["word", "wood"], ["wood", "joke", "moat"]))

3. def destroy\_sequential\_targets(nums, space):

from collections import defaultdict

count = defaultdict(int)

for num in nums:

count[num % space] += 1

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max_count = max(count.values())
candidates = [num for num in nums if count[num % space] == max_count]
return min(candidates)
print(destroy_sequential_targets([3,7,8,1,1,5], 2))

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4. def make\_integer\_beautiful(n, target):

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def digit_sum(x):
    return sum(int(d) for d in str(x))

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x = 0

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while digit_sum(n + x) > target:

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    x += 1

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return x

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print(make_integer_beautiful(16, 6))

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5. def sort\_by\_empty\_space(nums):

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def find_zero(nums):
    return nums.index(0)

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n = len(nums)

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target = list(range(n))

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if nums == target or nums == target[::-1]:

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    return 0

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moves = 0

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while nums != target:

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    zero_index = find_zero(nums)

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    if zero_index != 0:

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    nums[zero_index], nums[nums[zero_index]] = nums[nums[zero_index]], nums[zero_index]
    moves += 1
else:
    for i in range(1, n):
        if nums[i] != i:
            nums[0], nums[i] = nums[i], nums[0]
            moves += 1
            break
    return moves
print(sort_by_empty_space([4,2,0,3,1]))
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6.def apply_operations(nums):
    n = len(nums)
    for i in range(n - 1):
        if nums[i] == nums[i + 1]:
            nums[i] *= 2
            nums[i + 1] = 0

    result = [num for num in nums if num != 0] + [0] * nums.count(0)
    return result
print(apply_operations([1,2,2,1,1,0]))
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