

1.Odd string difference

```
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.Words within two edits of dictionary

```
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","note","ants","wood"], ["wood","joke","moat"])) # Output:  
["word", "note", "wood"]
```

3.Destroy sequential targets

```
def destroy_sequential_targets(nums, space):  
    from collections import defaultdict  
    count = defaultdict(int)  
    for num in nums:
```

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        count[num % space] += 1

    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))

```

4.Minimum addition to make integer beautiful

```

def make_integer_beautiful(n, target):

    def digit_sum(x):

        return sum(int(d) for d in str(x))

    x = 0

    while digit_sum(n + x) > target:

        x += 1

    return x

print(make_integer_beautiful(16, 6))

```

5.Sort array by moving items to empty space

```

def sort_by_empty_space(nums):

    def find_zero(nums):

        return nums.index(0)

    n = len(nums)

    target = list(range(n))

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

        return 0

    moves = 0

    while nums != target:

        zero_index = find_zero(nums)

        if zero_index != 0:

            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]))
```

6.Apply operations to an array

```
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]))
```