Problem 1

Function Signature:

```
def print_pattern(n: int) -> None:
```

Input:

- An integer `n` (1 ≤ n ≤ 26) — the number of characters in the first row.

Output:

- Print the pattern as described.
- Each character should be separated by a space.
- No trailing spaces at the end of any line.

Examples:

Input:

```
n = 3
```

Output:

```
A B C
A B
A
```

Input:

```
n = 6
```

Output:

```
A B C D E F
A B C D E
A B C D
A B C
A B
A
```

Constraints:

- 1 ≤ N ≤ 26

Problem 2

Function Signature:

```
def missing_number(nums: list[int]) -> int:
```

Input:

- A list of integers `nums` containing `n` distinct numbers in the range `[0, n]`.

Output:

- Return the only number in the range `[0, n]` that is missing from the array.

Examples:

Input:

```
nums = [3, 0, 1]
```

Output:

```
2
```

Input:

```
nums = [0, 1]
```

Output:

```
2
```

Input:

```
nums = [9,6,4,2,3,5,7,0,1]
```

Output:

```
8
```

Constraints:

- `n == len(nums)`
- `1 <= n <= 10^4`
- `0 <= nums[i] <= n`
- All the numbers in `nums` are unique.

Problem 3

Description

You are given two strings `a` and `b`, consisting of lowercase English letters. You may perform the following operations any number of times in any order:

- Delete the **first** character of string `a` (if `a` is not empty).
- Delete the **last** character of string `a` (if `a` is not empty).
- Delete the **first** character of string `b` (if `b` is not empty).
- Delete the **last** character of string `b` (if `b` is not empty).

Your goal is to make the two strings equal. Note that empty strings are also considered equal.

Return the **minimum number of operations** needed to make `a` and `b` equal.

Function Signature

```
def min_operations_to_equal_strings(a: str, b: str) -> int:
```

Example 1:

Input:

```
a = "a"
b = "a"
```

Output:

```
0
```

Example 2:

Input:

```
a = "abcd"
b = "bc"
```

Output:

```
2
```

Example 3:

Input:

```
a = "hello"
b = "helo"
```

Output:

```
3
```

Example 4:

Input:

```
a = "dhjakjsnasjhfksafasd"
b = "adjsnasjhfksvdafdser"
```

Output:

```
20
```

Constraints:

- `1 <= len(a), len(b) <= 20`
- `a` and `b` consist only of lowercase English letters.
