1. Difference Between Ones and Zeros in Row and Column

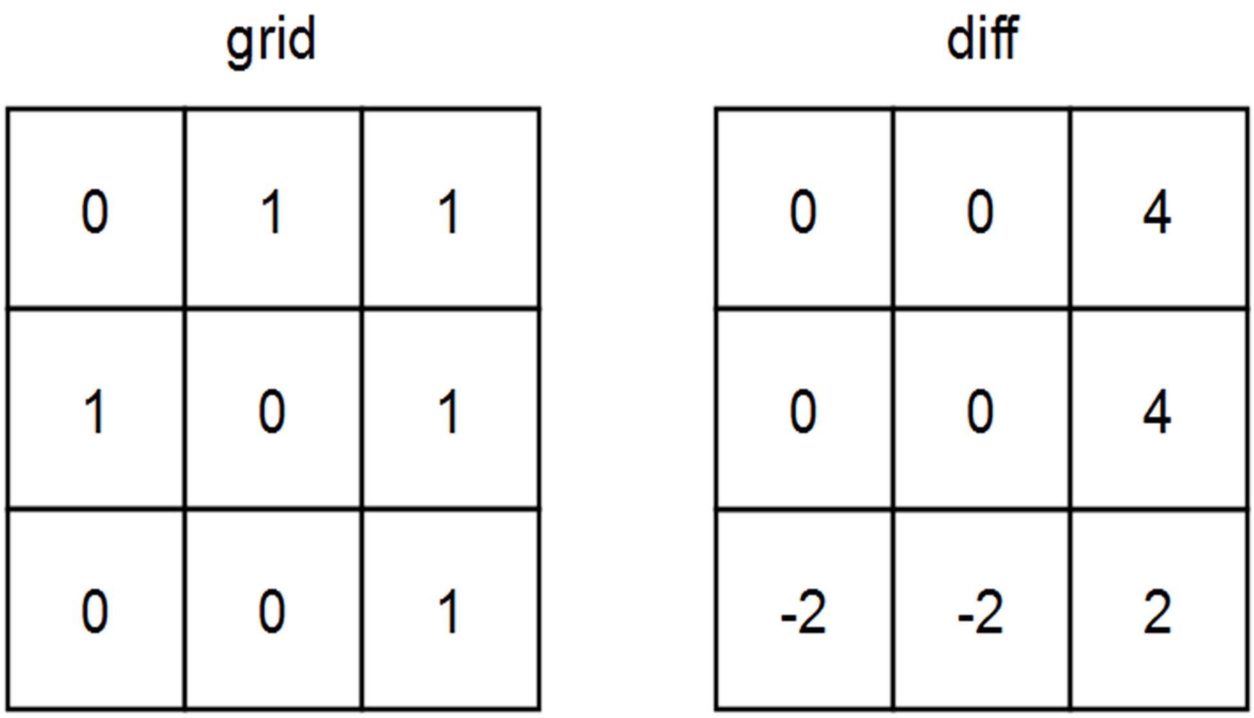
You are given a **0-indexed** m x n binary matrix grid.

A **0-indexed** m x n difference matrix diff is created with the following procedure:

- Let the number of ones in the i^{th} row be $onesRow_i$.
- Let the number of ones in the j^{th} column be $onesCol_j$.
- Let the number of zeros in the i^{th} row be $zerosRow_i$.
- Let the number of zeros in the j^{th} column be $zerosCol_j$.
- $diff[i][j] = onesRow_i + onesCol_j - zerosRow_i - zerosCol_j$

Return *the difference matrix* diff.

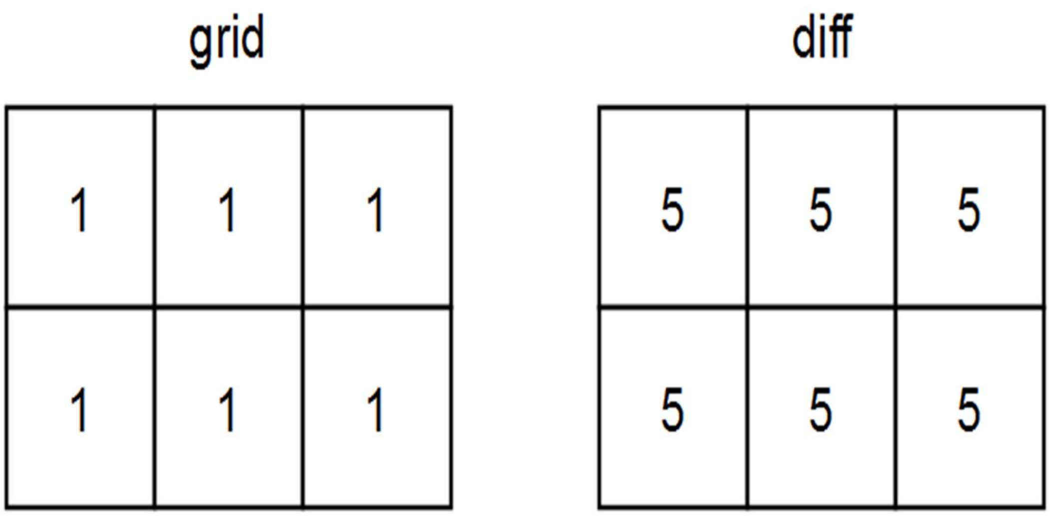
Example 1:



Input: grid = [[0,1,1],[1,0,1],[0,0,1]]
Output: [[0,0,4],[0,0,4],[-2,-2,2]]
Explanation:
- $diff[0][0] = onesRow_0 + onesCol_0 - zerosRow_0 - zerosCol_0 = 2 + 1 - 1 - 2 = 0$
- $diff[0][1] = onesRow_0 + onesCol_1 - zerosRow_0 - zerosCol_1 = 2 + 1 - 1 - 2 = 0$
- $diff[0][2] = onesRow_0 + onesCol_2 - zerosRow_0 - zerosCol_2 = 2 + 3 - 1 - 0 = 4$
- $diff[1][0] = onesRow_1 + onesCol_0 - zerosRow_1 - zerosCol_0 = 2 + 1 - 1 - 2 = 0$
- $diff[1][1] = onesRow_1 + onesCol_1 - zerosRow_1 - zerosCol_1 = 2 + 1 - 1 - 2 = 0$
- $diff[1][2] = onesRow_1 + onesCol_2 - zerosRow_1 - zerosCol_2 = 2 + 3 - 1 - 0 = 4$

- diff[2][0] = onesRow$_2$ + onesCol$_0$ - zerosRow$_2$ - zerosCol$_0$ = 1 + 1 - 2 - 2 = -2
- diff[2][1] = onesRow$_2$ + onesCol$_1$ - zerosRow$_2$ - zerosCol$_1$ = 1 + 1 - 2 - 2 = -2
- diff[2][2] = onesRow$_2$ + onesCol$_2$ - zerosRow$_2$ - zerosCol$_2$ = 1 + 3 - 2 - 0 = 2

Example 2:



Input: grid = [[1,1,1],[1,1,1]]
Output: [[5,5,5],[5,5,5]]
Explanation:
- diff[0][0] = onesRow$_0$ + onesCol$_0$ - zerosRow$_0$ - zerosCol$_0$ = 3 + 2 - 0 - 0 = 5
- diff[0][1] = onesRow$_0$ + onesCol$_1$ - zerosRow$_0$ - zerosCol$_1$ = 3 + 2 - 0 - 0 = 5
- diff[0][2] = onesRow$_0$ + onesCol$_2$ - zerosRow$_0$ - zerosCol$_2$ = 3 + 2 - 0 - 0 = 5
- diff[1][0] = onesRow$_1$ + onesCol$_0$ - zerosRow$_1$ - zerosCol$_0$ = 3 + 2 - 0 - 0 = 5
- diff[1][1] = onesRow$_1$ + onesCol$_1$ - zerosRow$_1$ - zerosCol$_1$ = 3 + 2 - 0 - 0 = 5
- diff[1][2] = onesRow$_1$ + onesCol$_2$ - zerosRow$_1$ - zerosCol$_2$ = 3 + 2 - 0 - 0 = 5

2. Smallest Even Multiple.
   Given a positive integer n, return the smallest positive integer that is a multiple of both 2 and n.

   Example 1:Input: n = 5 Output: 10
   Explanation: The smallest multiple of both 5 and 2 is 10.
   Example 2: Input: n = 6 Output: 6
   Explanation: The smallest multiple of both 6 and 2 is 6. Note that a number is a multiple of itself.
3. Length of the Longest Alphabetical Continuous Substring.
   An alphabetical continuous string is a string consisting of consecutive letters in the alphabet. In other words, it is any substring of the string "abcdefghijklmnopqrstuvwxyz".

   For example, "abc" is an alphabetical continuous string, while "acb" and "za" are not.

Given a string s consisting of lowercase letters only, return the length of the longest alphabetical continuous substring.
Example 1: Input: s = "abacaba" Output: 2
Explanation: There are 4 distinct continuous substrings: "a", "b", "c" and "ab".
"ab" is the longest continuous substring.

Example 2: Input: s = "abcde" Output: 5
Explanation: "abcde" is the longest continuous substring.

4. Sum of Prefix Scores of Strings.
   You are given an array words of size n consisting of non-empty strings.

   We define the score of a string word as the number of strings words[i] such that word is a prefix of words[i].

   For example, if words = ["a", "ab", "abc", "cab"], then the score of "ab" is 2, since "ab" is a prefix of both "ab" and "abc".
   Return an array answer of size n where answer[i] is the sum of scores of every non-empty prefix of words[i].

   Note that a string is considered as a prefix of itself.
   Example 1:Input: words = ["abc","ab","bc","b"] Output: [5,4,3,2]
   Explanation: The answer for each string is the following:
   - "abc" has 3 prefixes: "a", "ab", and "abc".
   - There are 2 strings with the prefix "a", 2 strings with the prefix "ab", and 1 string with the prefix "abc".
   The total is answer[0] = 2 + 2 + 1 = 5.
   - "ab" has 2 prefixes: "a" and "ab".
   - There are 2 strings with the prefix "a", and 2 strings with the prefix "ab".
   The total is answer[1] = 2 + 2 = 4.
   - "bc" has 2 prefixes: "b" and "bc".
   - There are 2 strings with the prefix "b", and 1 string with the prefix "bc".
   The total is answer[2] = 2 + 1 = 3.
   - "b" has 1 prefix: "b".
   - There are 2 strings with the prefix "b".
   The total is answer[3] = 2.

   Example 2: Input: words = ["abcd"] Output: [4]
   Explanation:
   "abcd" has 4 prefixes: "a", "ab", "abc", and "abcd".
   Each prefix has a score of one, so the total is answer[0] = 1 + 1 + 1 + 1 = 4.
5.