

MATRIX & BIT MANIPULATION - SET 1 QUESTIONS

Question 1:

- ❖ Problem link: <https://leetcode.com/problems/search-a-2d-matrix/>
- ❖ Difficulty level: Easy
- ❖ Expected Complexity:
 - Time: $O(\log(mn))$
 - Extra space: $O(1)$

Question 2:

- ❖ Problem link: <https://practice.geeksforgeeks.org/problems/sorted-matrix2333/1>
- ❖ Difficulty level: Easy
- ❖ Expected Complexity:
 - Time: $O(N^2 \log N)$
 - Extra space: $O(N^2)$

Question 3:

- ❖ Problem link: <https://practice.geeksforgeeks.org/problems/multiply-matrices/1>
- ❖ Difficulty level: Easy
- ❖ Expected Complexity:
 - Time: $O(N^3)$
 - Extra space: $O(N^2)$

Question 4:

❖ **Problem link:**

<https://practice.geeksforgeeks.org/problems/print-matrix-in-snake-pattern-1587115621/1>

Difficulty level: Easy

❖ **Expected Complexity:**

- Time: $O(N^2)$
- Extra space: $O(N^2)$

Question 5:

❖ **Problem link:**

<https://practice.geeksforgeeks.org/problems/spirally-traversing-a-matrix-1587115621/1>

❖ **Difficulty level:** Medium

❖ **Expected Complexity:**

- Time: $O(nm)$
- Extra space: $O(nm)$

Question 6:

❖ **Problem link:** <https://leetcode.com/problems/rotate-image/>

❖ **Difficulty level:** Medium

❖ **Expected Complexity:**

- Time: $O(N^2)$
- Extra space: $O(1)$

Question 7:

- ❖ **Problem link:** <https://practice.geeksforgeeks.org/problems/kth-element-in-matrix/1>
- ❖ **Difficulty level:** Medium
- ❖ **Expected Complexity:**
 - Time: $O(n \log n)$
 - Extra space: $O(n)$

Question 8:

- ❖ **Problem link:** <https://practice.geeksforgeeks.org/problems/max-sum-submatrix2725/1>
- ❖ **Difficulty level:** Hard
- ❖ **Expected Complexity:**
 - Time: $O(Q \cdot N \cdot M)$
 - Extra space: $O(N \cdot M)$

Question 9:

- ❖ **Problem link:** <https://leetcode.com/problems/minimum-path-sum/>
- ❖ **Difficulty level:** Hard
- ❖ **Expected Complexity:**
 - Time: $O(N^2)$
 - Extra space: $O(N^2)$

Note: The solutions of all these questions will be provided on 25th May, 2021