Lab 6

1. Input an array a, such that $1 \leq a[i,j] \leq 100$.
2. Input an array such that each element per-column/per-row has increasing order.
3. Write a program to calculate the sum of all distinct integer element in an array.
4. Write a program the calculate the sum of all non-repeating element.
5. Sum of all elements on the major/minor diagonal.
6. Calculate the average of all positive elements in an array.
7. Counting for the number of occurrences of x in an array.
8. Counting for the number of square numbers on row i^{th}.
9. Searching for minimum/maximum element in an array.
10. Searching for maximum/minimum element on row i^{th}.
11. Searching for maximum/minimum element on column j^{th}
12. Finding for row/column having the largest sum.
13. Finding for largest negative element
14. Finding for element with the highest occurrence frequency.
15. Finding for row contain the most primes.
16. Finding for column contain the most x.
17. Checking for increment in horizontally/vertically zig-zag order.
18. Assuming square matrix, checking for palindrome across major diagonal.
19. Assuming square matrix, checking for palindrome across minor diagonal.
20. Checking for the presence of element x inside an array.
21. Checking for the presence of an all-even row in an array.
22. Checking for the presence of an ascending-sorted column.
23. Assuming square matrix, checking for elements on major diagonal are sorted in ascending order.
24. Generate a 1D array b containing all distinct elements in matrix a.

25. Generate a 2D array b such that $b[i][j] = \max row_i + \max column_j$.

Lab 7

26. *Counting for the number of maximum elements compare to theirs neighbours.
27. *Printing the position of all elements having more than 2 positive neighbours
28. *Printing the number of maximum/minimum elements compare to theirs neighbours as in Assignment 1.
29. *Printing the number of maximum/minimum elements compare to theirs neighbours as in Assignment 1.

RECURSION ON 1D ARRAY:

30. Array input.
31. Sum of all elements.
32. Calculate the sum of all positive/ negative/ odd/ even/ prime/ square elements...
33. Finding for maximum/minimum element.
34. Finding for maximum negative element/minimum positive element.
35. Counting for the number of occurrences of element x.
36. Checking for ascending/descending sorted order.
37. Checking for the presence of at least an negative element?
38. Checking for palindrome array? Eg: 1 3 4 3 1 is a palindrome.
39. Sort array in ascending/descending order.
40. Generate an array b in reversed order of array a.