Beginner Level:

1. **Write a script to print all array values in the console.**
2. **Print all the array values using a for loop.**
    - Input: [23, 34, 54, 0, 4, 7] → Output: 23 34 54 0 4 7
3. **Print all numbers in an array except the first element.**
    - Input: [23, 34, 54, 0, 4, 7] → Output: 34 54 0 4 7
4. **Print all elements in an array except the last element.**
    - Input: [23, 34, 54, 0, 4, 7] → Output: 23 34 54 0 4
5. **Print all numbers in reverse order (last index to first index).**
    - Input: [23, 34, 54, 0, 4, 7] → Output: 7 4 0 54 34 23
6. **Print the first 4 elements in an array.**
7. **Store an array into another array (copy array).**
    - Input: ar = [23, 34, 54, 10, 4, 7] → Output: br = [23, 34, 54, 10, 4, 7]
8. **Print only the last 4 elements of an array.**
    - Input: [23, 34, 54, 0, 4, 7] → Output: 54 0 4 7
9. **Sort an array in ascending order.**
    - Input: [23, 34, 54, 10, 4, 7] → Output: 4 7 10 23 34 54
10. **Print only even numbers from an array.**
    - Input: [23, 34, 54, 10, 4, 7] → Output: 34 54 10 4
11. **Print only odd numbers from an array.**
    - Input: [23, 34, 54, 10, 4, 7] → Output: 23 7
12. Print all the numbers from the last index to the first index except the first element.
13. Print all the numbers from the last index to the first index except the last element.

Intermediate Level:

12. **Find the minimum number in an array.**
    - Input: [23, 34, 54, 10, 4, 7] → Output: 4
13. **Find the maximum number in an array.**
    - Input: [23, 34, 54, 10, 4, 7] → Output: 54
14. **Sum all elements in an array.**
    - Input: [23, 34, 54, 10, 4, 7] → Output: 132
15. **Find the average of all elements in an array.**
    - Input: [23, 34, 54, 10, 4, 7] → Output: 22
16. **Find all numbers greater than a given number.**
    - Input: [23, 34, 54, 10, 4, 7], Threshold: 20 → Output: 23, 34, 54
17. **Search if a number exists in an array.**
    - Input: [23, 34, 54, 10, 4, 7], Query: 34 → Output: true
18. **Find the total number of times an element appears in an array.**
    - Input: [23, 34, 54, 10, 34, 7, 23], Query: 34 → Output: 2
19. **Print the index of a given element.**
    - Input: [23, 34, 54, 10, 4, 7], Query: 34 → Output: 1
20. **Eliminate duplicates in an array.**
    - Input: [23, 34, 54, 10, 34, 7, 23] → Output: [23, 34, 54, 10, 7]
21. **Create a duplicate array for a given array.**
22. Print all **even numbers** in an array.

23. Print all **odd numbers** in an array.
24. Print all **positive numbers** in an array.

Advanced Level:

22. **Reduce each element of an array by 25% and store in another array.**
23. **Store only even numbers of an array into another array.**
24. **Print only the perfect squares in an array.**
25. **Print only 2-digit numbers from an array.**
26. **Print only multiples of 5 from an array.**
27. **Print only numbers that are multiples of 2 AND 3.**
28. **Print numbers that are factors of 54 AND 42.**
29. **Increment salaries by 5% in a given array.**
30. **For each salary, calculate the final amount after adding 40% HRA, 92% DA, and deducting 10% tax.**
31. **Sort an array based on the number of occurrences of elements.**
    - Input: [1, 2, 5, 6, 2, 1, 6, 1, 2]
    - Output: [5, 6, 6, 6, 1, 1, 1, 2, 2, 2, 2]
32. **Print elements in the second half of an array.**
33. **Print the greatest of all 2-digit numbers in an array.**
34. **Write a program to remove elements that are not in ascending order.**
    - Input: [12, 34, 11, 56, 37, 98, 23] ⟶ Output: [12, 34, 56, 98]

31. Increment all salaries in an array by **5%**.
32. For each basic salary:

- Add **40% HRA**, **92% DA**, **10% Tax** and display the result.

33. Deduct tax:

- **10% for salaries < 50000**, **12% for salaries > 50000**.

✅ **Complex Searching & Filtering**

34. Print **odd numbers** divisible by 3.
35. Insert the **first 10 odd numbers** into an empty array.
36. Print elements in the **second half** of the array.
37. Find the **greatest two-digit number** in an array.

✅ **Sorting & Ordering**

38. Remove elements that are **not in ascending order**.
39. Sort an array **based on the number of occurrences of elements**.

✅ **Array Merging & Manipulation**

40. **Merge two arrays** with values of the first array appearing first.
41. **Merge two arrays** with values of the second array appearing first.
42. Merge two **sorted arrays** into one.

✅ **Insert & Remove Elements**

43. Insert an element at a **specific position** in an array.
44. Remove an element from a **specific position**.

✅ **String & Recursion-Based Operations**

45. Check if a **string is a palindrome** using a loop.
46. Convert all **input strings into asterisks (*)**.
47. Read and print elements of an array using **recursion**.
48. Print all **negative elements** in an array.
49. Find the **sum** of all elements using **recursion**.
50. Find the **minimum and maximum** elements using **recursion**.

🔴 **Advanced Level (Complex Operations & Recursion)**

✅ **Advanced Searching & Sorting**

51. Find the **second-largest** element in an array.
52. Count the **total even and odd elements** in an array.
53. Count the **total negative numbers** in an array.
54. Count the **frequency of each element** in an array.
55. Print all **unique elements** in an array.
56. Count the **total duplicate elements** in an array.
57. Delete all **duplicate elements** from an array.

✅ **Array Merging & Transformations**

58. Merge two arrays into a **third array**.
59. Find the **reverse** of an array.
60. Separate **even and odd elements** into two different arrays.

✅ **Complex Manipulations**

61. Search for an **element in an array**.
62. Sort elements in **ascending/descending order**.
63. Sort **even and odd elements separately**.
64. **Right rotate** an array
65. For the given arrays solve the following

```
var ar = [19,12,23,4,15];
var br = [26,37,18,79,10];
```

a)Write script to merge array as the values of ar in the first and values of br next
Expected output: [19,12,23,4,15,26,37,18,79,10];

b)Write script to merge array as the values of ar in the first and values of br next
Expected output: [26,37,18,79,10,19,12,23,4,15];

...ence concept.

method in java

matrices assignments.

1. print the traspose of matrrix
2. print the diagonal matrix
3. print the upper traingle of the matrix
4. print the lower triangle of the matrix
5. print only the diagonal elements in matrix format
6. check the given matrix is a diagonal matrix or now.
7. add two matrix
8. multiply two matrix
9. represent 5 students marks of 3 subjects each in an array' calculate the following
    - which student has the more marks.
    - how many students have passed in the all the 3 subjects
    - what is the percentage of each student
    - what is the avg mark of each subject
    - how many students have failed in each subject
    - what is the class avg.