1. Write a program to reverse an array without using an additional array?

2. How to merge two unsorted arrays in sorted order ?

3. How to merge two sorted arrays?

4. Write a program to merge and sort elements of two different arrays

5. Write a program to print all unique elements in an array.

6. Write a program to remove all the prime numbers in an array

7. Program to find the average of n (n < 10) numbers using arrays

8. Program to find the average of n numbers using arrays

9. Write a Program to Delete an Integer from an Array of random numbers

10. Write a program to find the sum of all elements of the array

11. Write a program to copy the elements of one array into another array

12. Write a program to print all unique elements in an array

13. Write a program to insert a element in specified position in an array

14. Write a program to sort elements of array in ascending order

15. Write a program to insert New value in the array (sorted list)

16. Write a program to sort an array and print the count of unique elements in the array.

17. Write a program to print the sum of unique elements from an array

18. Write a program to delete all the multiples of 5 in an array.

19. Write a program to print an array of random numbers in reverse order.

20. How do you find the duplicate number on a given integer array

21. Write a program to delete two elements after the occurrence of a prime number and replace all even numbers by 0.

22. Write a program to sort an array and print the count of '1' in the array.

23. In an array, replace all the prime numbers with ' * ' & remove all the odd numbers.

24. Sort the array and replace elements in an odd position with * and remove prime numbers

25. Find the sum of unique prime numbers in an array.

26.   In an array remove all the prime numbers > 50 and remove all the non-prime numbers < 50.

27.   Write a program to count even and odd numbers in an array and also print the sum of the even numbers in an array.

28.   How do you find all pairs of an integer array whose sum is equal to a given number?

29.   Write a program to delete two elements after the occurrence of a prime number and replace all even numbers by 3.

30.   Write a program to move all zeros to the beginning of an array.

31.   Sort the array and replace elements in an odd position with * and remove prime numbers

32.   Write a program to read n number of values in an array and display the array after deleting two values next to the multiples of 3.

33.   Write a program to read an array and count even and odd numbers in an array and also Print sum of the even numbers in an array.

34.   Write a program to sort an array and print the count of '1' in the array.

35.   Write a program to delete two elements after the occurrence of an even number

36.   Write a program to find array elements that repeat 2 times in the array.

37.   Write a program to move all zeros to the end of an array

38.   Write a program to merge two arrays of the same size sorted in descending order.

39.   Write a program to count the frequency of each element of an array.

40.   Write a program to find the maximum and minimum element in an array.

41.   Write a program to separate odd and even integers in separate arrays.

42.   Write a program to insert New value in the array (sorted list).

43.   Write a program to insert New value in the array (unsorted list) in (specific position).

1.Write a program to print the following star pattern
* *
*
*
*
* * * *
* * * *
*
*
*
* * * * * *
* * * * * *
* * * * * *

2.Write a program to print the following star pattern

*
* * *
*
* * *
* * *
*

```
* * *
* * *
* * *
*
* * *
* * *
* * *
* * *
```

3.Write a program to print the following star pattern
```
* * *
* * *
*
* * * * * *
* * * * * *
*
*
* * * * * * * * *
* * * * * * * * *
```

4.Write a program to print the following star pattern
```
* * * *
* *
* * * * * * *
* * *
* * * * * * * * * * *
* * * *
* * * * * * * * * * * * * * *
```

6.Write a program to print the following star pattern
```
* * * * *
*
* * * * * * * * *
*
*
* * * * * * * * * * * * *
*
*
*
* * * * * * * * * * * * * * * * *
```

7.Write a program to print the following star pattern
```
* *
```

```
* * * * *
* *
* *
* * * * * * * * *
* *
* *
* *
* * * * * * * * * * * * *
* *
* *
* *
* *
```

8.Write a program to print the following star pattern
```
* * * * *
*
*
* * *
*
*
* * * * *
*
*
* * *
*
*
* * * * *
```

10.Write a program to print the following star pattern
```
* *
* *
* * * * *
* *
* *
* * * * * * * * *
* *
* *
* * * * * * * * * * * * *
```

11.Write a program to print the following star pattern
```
* * * * *
*
```

```
    *
    * * * * * * * * *
    *
    *
    *
    *
    * * * * * * * * * * * * * *
    *
    *
    *
    *
    *
    *
```

12. Print this pattern

```
    *       *
     *     *
      *   *
       * *
        *
       * *
      *   *
     *     *
    *       *
```

13. *Print the array elements in the following pattern.*
```
* * * * *
*
*
*
* * * * * * * * *
*
*
*
*
*
*
```

* * * * * * * * * * * * * *

14. Write a program to print the following star pattern.

* *
*
* * *
*
*
*
* * * * * * *
*
*
*
*
*

16. Write a program to print the following star pattern.

* * *
*
*
*
* * * * * *
* * * * * *
*
*
*
* * * * * * * *
* * * * * * * *
* * * * * * * *

17. Write a program to print the following star pattern

        *
        *
        * * *
        * *
        * *
        * * * * *
        * * *
        * * *
        * * * * * * * *

18. Write a program to print the following number pattern.

```
     1
    1  2
   1  2  3
  1 2 3   4
 1  2  3   4  5
1 2 3  4  5  6
```

19. Write a program to print the following Alphabets pattern.

```
I
I N
I N D
I N D I
I N D I A
```

20. Write a program to print the following Alphabets pattern.

```
M
M A
M A L
M A L A
M A L A Y
M A L A Y A
M A L A Y A L
M A L A Y A L A
M A L A Y A L A M
```

21. Write a program to print the following pattern

```
* * * * *
  * * * * *
    * * * * *
      * * * * *
        * * * * *
```

22. Write a program to print the following pattern

```
1 2 3 4 5
 2 4 6 8
  3 6 9
   4 8
    5
```

23. Write a program to print the following pattern

1

```
1 2
1 2 3
1 2 3 4
1 2 3 4 5
1 2 3 4 5 6
1 2 3 4 5
1 2 3 4
1 2 3
1 2
1
```

24. Write a program to print the following pattern

```
 A
 1 1
B B B
2 2 2 2
CCCCC
3 3 3 3 3
DDDDDDD
```

25. Write a program to print the following pattern

```
1
2 * 2
3 * 3 * 3
4 * 4 * 4 * 4
4 * 4 * 4 * 4
3 * 3 * 3
2 * 2
1
```

26. Write a program to print the following pattern

```
            *
        *       *
      *           *
     *               *
    *                   *
     *               *
      *           *
        *       *
            *
```

27.Write a program to print the following patten

```
1
1 1
1 2 1
1 3 3 1
1 4 6  4 1
```

28.Write a program to print the following patten

```
            1
         2  3  2
      3  4  5  4  3
   4  5  6  7  6  5  4
```

29.Write a program to print the following patten

```
      *
     *_*
    *___*
   *_____*
  *_____*
```

30.Write a program to print the following pattern

```
     *
    * *
   *   *
  *     *
 *       *
***********
```

31.Write a program to print the following pattern

```
*******
******
*****
****
***
**
*
**
***
****
*****
```

```
******
*******
```

32.Write a program to print the following pattern

```
1
2 3
4 5 6
7 8 9 10
11 12 13 14 15
16 17 18 19 20 21
```

33.Write a program to print the following pattern

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

34.Write a program to print the following pattern

```
*               *
  *           *
    *       *
      *   *
        *
```

35. Write a program to print the following pattern

```
      1
    2   2
  3       3
 4           4
5             5
```

36.Write a program to print the following pattern

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

37. Write a program to print the following pattern.

```
      *  *  **
    *        *
   *          *
```

```
*  *  *  *
```

38. Write a program to print the following star pattern.

```
* * * * * * * * * *
*
* * * * * * * *
*
*
* * * * * *
*
*
*
* * * *
*
*
*
*
* *
*
*
*
*
*
```

39. Write a program to print the following star pattern.

```
* * * * * * *
* *       * *
*   *   *   *
*     *     *
 *   *   *   *
 * *       * *
 * * * * * * *
```

40. Write a program to print the following star pattern.

```
* * *
*
*
*
* * * * * *
* * * * * *
*
*
*
* * * * * * * *
* * * * * * * *
* * * * * * * *
```

41. Write a program to print the following star pattern.

```
* * * * * *
*
* * * * * *
*
*
* * * * * *
*
*
*
* * * * * *
*
*
*
*
* * * * * *
```

45. Write a program to print the following star pattern

```
* * * * *
*
*
* * *
*
*
* * * * *
*
*
* * *
*
*
* * * * *
```

42. Write a program to print the following star pattern

```
*
* * *
*
* * *
* * *
*
* * *
* * *
* * *
*
* * *
* * *
* * *
* * *
```

43. Write a program to print the following star pattern

```
X
X X
X X X
X
X X
X X X
X X X X
X
X X
X X X
X X X X
X X X X X
```

44. Write a program to print the following star pattern

```
X X X X
X X X
X
X
X
X X X
X X
X
X
X
X X
X
```

46. Write a program to print the following pattern.

```
* * * * *
  * * * * *
    * * * * *
      * * * * *
        * * * * *
```

47.**Write a program to print the following pattern.**

```
1
1 2
1 2 3
1 2 3 4
1 2 3 4 5
1 2 3 4 5 6
1 2 3 4 5
1 2 3 4
1 2 3
1 2
1
```

48. **Write a program to print the following pattern.**

```
1
1 2 3
1 2 3 4 5
1 2 3 4 5 6 7
1 2 3 4 5
1 2 3
1
```

50. **Write a program to print the following pattern.**

```
1 1 1 1 1 1
1 1 1 1 2 2
1 1 1 3 3 3
1 1 4 4 4 4
1 5 5 5 5 5
6 6 6 6 6 6
```

49. Write a program to print the following pattern.

```
1 2 3 4 5 6
1 2 3 4 5

1 2 3 4

1 2 3

1 2

1

1

1 2

1 2 3

1 2 3 4

1 2 3 4 5

1 2 3 4 5 6
```

51. Write a program to print the following pattern.

```
1
2 * 2
3 * 3 * 3
4 * 4 * 4 * 4
4 * 4 * 4 * 4
3 * 3 * 3
2 * 2
1
```

52. Write a program to print the following pattern.

```
*
$ *
*  $ *
$ * $ *
* $ * $ *
```

53. Write a program to print the following star pattern.

```
              *
            * * *
          * * * * *
        * * * * * * *
      * * * * * * * * *
        * * * * * * *
          * * * * *
            * * *
              *
```

54. Print the following pattern

```
*                    *
* *                * *
* * *            * * *
* * * *        * * * *
* * * * * * * * * * * *
* * * * * * * * * * * *
* * * *        * * * *
* * *            * * *
* *                * *
*                    *
```

55.Write a program to print the following star pattern

```
* * * * *   * * * * *
* * * *         * * * *
* * *               * * *
* *                     * *
*                           *
*                           *
* *                     * *
* * *               * * *
* * * *         * * * *
* * * * *   * * * * *
```

56. **Write a program to print the following star pattern**

```
            *
         * * *
       *    *    *
     *       *       *
  * * * * * * * * *
     *       *       *
       *    *    *
         * * *
            *
```

57. Write a program to print the following star pattern

```
X
X X X
X
X
X X X X X X
X
X
X
```

x x x x x x x x x