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 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