1. Write a program to display the following. Allow the user to provide input as like,

   Enter a value: 10 **(if the user given 10, your application as to generate the following figure)**

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

2. Write a program to generate multiplication times table as like,

```
    Multiplication Table
    ********************
1   2   3   4   5   6   7   8   9   10
2   4   6   8   10  12  14  16  18  20
3   6   9   12  15  18  21  24  27  30
4   8   12  16  20  24  28  32  36  40
5   10  15  20  25  30  35  40  45  50
6   12  18  24  30  36  42  48  54  60
7   14  21  28  35  42  49  56  63  70
8   16  24  32  40  48  56  64  72  80
9   18  27  36  45  54  63  72  81  90
10  20  30  40  50  60  70  80  90  100
```

3. Write a program to generate multiplication times table as per the user input.

   Enter a number : 3

   Multiplication table: 3

```
********************
1 x 3 = 3
2 x 3 = 6

10 x 3 = 30
```

4. Write a program to print the following,

a)

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

b)

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

c)

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

d)

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

e)

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

f)

```
  *
 ~ ~
* * *
~ ~ ~ ~
* * * * *
```

5. Write a program to create an integer array and allow the user to find a value from the list. Please follow the output format.

Enter a[0] value : 23
Enter a[1] value : 3
Enter a[2] value : 43
Enter a[3] value : 25
Enter a[4] value : 21
Enter a[5] value : 8

Given list : 23,3,43,25,21 and 8.
Enter your search value: 25
Search Result : your value is located in 4^{th} place .

Or

Enter your search value: 5
Search Result: Not found.

6. Write a program to store 6 different random numbers in the list between 10 to 20. Allow the user to find their lucky number in two tries.