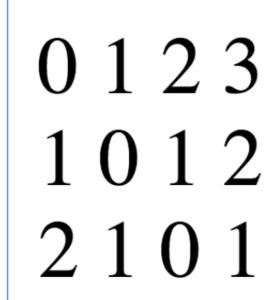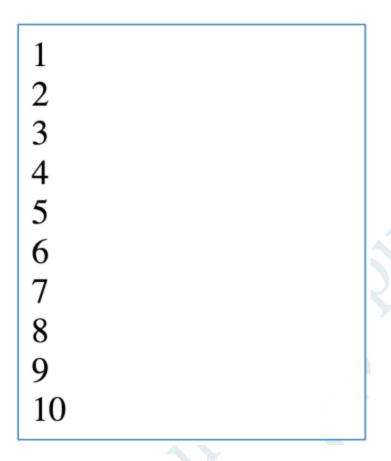# ARRAYS AND LOOP

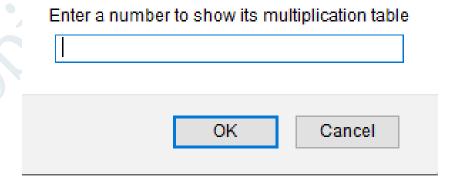1. Declare and initialize an empty multidimensional array. (Array of arrays)
2. Declare and initialize a multidimensional array representing the following matrix:

$$
\begin{matrix}
0 & 1 & 2 & 3 \\
1 & 0 & 1 & 2 \\
2 & 1 & 0 & 1
\end{matrix}
$$

3. Write a program to print numeric counting from 1 to 10.

```
1
2
3
4
5
6
7
8
9
10
```

4. Write a program to print multiplication table of any number using for loop. Table number & length should be taken as an input from user.

Enter a number to show its multiplication table

```

```

OK   Cancel

Enter length multiplication table

OK   Cancel

Multiplication table of 2
Length 15

2 x 1 = 2
2 x 2 = 4
2 x 3 = 6
2 x 4 = 8
2 x 5 = 10
2 x 6 = 12
2 x 7 = 14
2 x 8 = 16
2 x 9 = 18
2 x 10 = 20
2 x 11 = 22
2 x 12 = 24
2 x 13 = 26
2 x 14 = 28
2 x 15 = 30

5. Write a program to print items of the following array using for loop:
fruits = ["apple", "banana", "mango", "orange", "strawberry"]

> apple
> banana
> mango
> orange
> strawberry
>
> Element at index 0 is apple
> Element at index 1 is banana
> Element at index 2 is mango
> Element at index 3 is orange
> Element at index 4 is strawberry

6. Generate the following series in your browser. See example output.
   a. Counting: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15
   b. Reverse counting: 10, 9, 8, 7, 6, 5, 4, 3, 2, 1
   c. Even: 0, 2, 4, 6, 8, 10, 12, 14, 16, 18, 20
   d. Odd: 1, 3, 5, 7, 9, 11, 13, 15, 17, 19
   e. Series: 2k, 4k, 6k, 8k, 10k, 12k, 14k, 16k, 18k, 20k