Write a program to declare an array of size 5 and initialize it by taking values from user.
Now use pointers to access each element of this array and add all the elements and then pass this array in function named Display to print the result of addition.

## Input:

```
//Project by Aftab

#include <iostream>

using namespace std;

int display(int arr[5])

{

        int sum;

        for (int i = 0; i < 5; i++)

        {

                sum = sum + arr[i];



        }

        cout << "The sum of the numbers is =" << sum;

        return 0;

}

int numbers(int arr[5])

{

        for (int i = 0; i < 5; i++)

        {

                cin >> arr[i];
```

```cpp
	}
	cout << "The array you have entered = {";
	for (int i = 0; i < 5; i++)
	{
	cout << arr[i]  << " ";


	}
	cout << "}" <<endl;


	display(arr);
	return 0;
}
int main()
{
	int arr[5];
	cout << "Enter a any numbers: ";
	numbers(arr);


	return 0;
}
```

**Output:**

```
Enter a any numbers: 1
2
3
1
2
The array you have entered = {1 2 3 1 2 }
The sum of the numbers is =9

=== Code Execution Success    ===
```

Write a program to declare an array of size 10 and initialize it by taking values from user.

Now replace the element at 7$^{th}$ position with 3 and on 3$^{rd}$ index with 5.

Display the original and updated array.

**Input:**

```
// Project by Aftab

#include <iostream>

using namespace std;

int swap(int arr[10])

{

    int temp;

    temp=arr[3];

    arr[3]=arr[5];

    arr[5]=arr[7];

    arr[7]= temp;

        cout << "The updated  array = {" ;

        for (int i = 0; i < 10; i++)
```

```cpp
        {
                cout << arr[i]  << " ";


        }
        cout << "}" << endl;
        return 0;
}
int numbers(int arr[10])
{
        for (int i = 0; i < 10; i++)
        {
                cin >> arr[i];


        }
        cout << "The array you have entered = {";
        for (int i = 0; i < 10; i++)
        {
        cout << arr[i]  << " ";


        }
        cout << "}" <<endl;

        swap(arr);
        return 0;
```

```
}

int main()

{

        int arr[10];

        cout << "Enter a any numbers: ";

        numbers(arr);


        return 0;

}
```

**Output:**

```
Enter a any numbers: 0
1
2
3
4
5
6
7
8
9
The array you have entered = {0 1 2 3 4 5 6 7 8 9 }
The updated  array = {0 1 2 5 4 7 6 3 8 9 }
```

Given an array, let's say of values 1,2,3,4,5,6,7,8,9,10. Print the elements starting from a given index till the index repeats itself in a circular loop. For example if starting index = 4, the printing sequence would be 5,6,7,8,9,10,1,2,3,4.

**Input:**

// Project by Aftab

#include <iostream>

```cpp
using namespace std;

int numbers(int arr[10])
{
    int x;

        for (int i = 0; i < 10; i++)

        {

                cin >> arr[i];



        }



        cout << "Enter the index after which you want to repeat =";

        cin >> x;

        cout << "The array you have entered = {";

        for (int i = x; i < 10; i++)

        {

        cout << arr[i]  << " ";



        }



        for (int i = 0; i < x; i++)

        {

        cout << arr[i]  << " ";
```

```cpp
        }

        cout << "}" <<endl;

        return 0;

}

int main()

{

        int arr[10];

        cout << "Enter a any numbers: ";

        numbers(arr);


        return 0;

}
```

**Output:**

```
Enter a any numbers: 1
2
3
4
5
6
7
8
9
10
Enter the index after which you want to repeat =1
The array you have entered = {2 3 4 5 6 7 8 9 10 1 }


=== Code Execution Successful ===
```

Write a program to declare an array of size 5 and initialize it by taking values from user.

Now use pointers to access each element of this array and add all the elements and then pass this array in function named **Display** to print the result of addition.

## Input:

```
//Project by Aftab

#include <iostream>

using namespace std;

int display(int arr[5])

{

        cout << "The array you have entered = {";

        for (int i = 0; i < 5; i++)

        {

        int *a=& arr[i];

        *(a+i);

        cout << *a << " ";

        }

    cout << "}" <<endl;


        return 0;

}

int numbers(int arr[5])

{

        for (int i = 0; i < 5; i++)

        {
```

```cpp
        cin >> arr[i];

    }

    display(arr);
    return 0;

}
int main()
{
    int arr[5];
    cout << "Enter a any numbers: ";
    numbers(arr);


    return 0;

}
```

```
Enter a any numbers: 1
2
3
4
5
The array you have entered = {1 2 3 4 5 }
```