

## Sheet 5

### Exercise 1:

```
#include <iostream>
using namespace std;
void main ()
{
    int number[5], sum=0;
    cout<<"enter 5 numbers : ";

    for (int i = 0; i < 5; i++){
        cin>>number[i];
    }
    for (int i = 0; i < 5; i++){
        sum += number[i];
    }

    cout<<"The average = "<<float(sum)/5<<endl;
}
```

### Exercise 2:

```
#include <iostream>
using namespace std;
void main ()
{
    int number[10], max=0 , counter = 0;
    cout<<"enter 10 numbers : ";
    cin>>number[1];
    max = number [1];
    while (counter < 9){
        cin>> number[counter];
        if (number[counter]>max){
            max = number[counter];
        }
        counter ++;
    }

    cout<<"The Largest Number Is = "<<max<<endl;
}
```

### **Exercise 3:**

```
#include <iostream>
using namespace std;
void main ()
{
    int number[10], min=0 , counter = 0;
    cout<<"enter 10 numbers : ";
    cin>>number[1];
    min = number [1];
    while (counter < 9){
        cin>> number[counter];
        if (number[counter]<min){
            min = number[counter];
        }
        counter ++;
    }

    cout<<"The Smallest Number Is = "<<min<<endl;
}
```

### **Exercise 4:**

```
#include <iostream>
using namespace std;
void main ()
{
    int arr1[10][10] , arr2[10][10] , sum [10][10];
    cout<<"enter 9 elements of your Frist array : "<<endl;
    for (int i = 0; i < 3; i++){
        for (int j = 0; j < 3; j++){
            cin>> arr1[i][j];
        }
    }
    cout<<"enter 9 elements of your Second array : "<<endl;
    for (int i = 0; i < 3; i++){
        for (int j = 0; j < 3; j++){
            cin>> arr2[i][j];
        }
    }

    for (int i = 0; i < 3; i++){
        for (int j = 0; j < 3; j++){
            sum[i][j]= arr1[i][j] + arr2[i][j];
        }
    }

    for (int i = 0; i < 3; i++){
        for (int j = 0; j < 3; j++){
            cout<<arr2[i][j]<<" + "<<arr1[i][j]<<" = "<<sum[i][j]<<endl;
        }
    }
}
```

### Exercise 5:

```
#include <iostream>
using namespace std;
void main ()
{
    int arr1[10][10] , arr2[10][10] , muti [10][10];
    cout<<"enter 9 elements of your Frist array : "<<endl;
    for (int i = 0; i < 3; i++){
        for (int j = 0; j < 3; j++){
            cin>> arr1[i][j];
        }
    }
    cout<<"enter 9 elements of your Second array : "<<endl;
    for (int i = 0; i < 3; i++){
        for (int j = 0; j < 3; j++){
            cin>> arr2[i][j];
        }
    }

    for (int i = 0; i < 3; i++){
        for (int j = 0; j < 3; j++){
            muti[i][j]= arr1[i][j] * arr2[i][j];
        }
    }

    for (int i = 0; i < 3; i++){
        for (int j = 0; j < 3; j++){
            cout<<arr2[i][j]<<" * "<<arr1[i][j]<<" = "<<muti[i][j]<<endl;
        }
    }
}
```

### Exercise 6:

a)

```
#include <iostream>
using namespace std;
void main ()
{
    for (int i = 0; i < 5; i++){
        for (int j = 0; j < 5; j++){
            if (i == j){
                cout<<"1";
            }else{
                cout<<"0";
            }
        }
        cout<<endl;
    }
}
```

**b)**

```
#include <iostream>
using namespace std;
void main ()
{
    for (int i = 0; i < 5; i++){
        for (int j = 0; j < 5; j++){
            if (i == j){
                cout<<"A";
            }else{
                cout<<"B";
            }
        }
        cout<<endl;
    }
}
```

**c)**

```
#include <iostream>
using namespace std;
void main ()
{
    char arr[]={65,66,67,68,69};
    for (int i = 0; i < 5; i++){
        for (int j = 0; j < 5; j++){
            if (i == j){
                cout<<arr[i];
            }else{
                cout<<" ";
            }
        }
        cout<<endl;
    }
}
```