



**NATIONAL UNIVERSITY OF SCIENCES AND
TECHNOLOGY**

PROGRAMMING FUNDAMENTALS

LAB TASK # 7

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<u>COURSE:</u>	<u>CS-114</u>
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Q1:

```
#include <iostream>
using namespace std;
int main() {
    int i=0;
    int arr[10];
    for (int k = 0; k < 10; ++k) {
        cout<<"Enter a number:";
        cin>>arr[k];
    }
    while (i<10){
        cout<<arr[i]<<endl;
        i++;
    }
    return 0;
}
```

Q 1 (results):



The image shows a code editor with two tabs: 'CMakeLists.txt' and 'main.cpp'. The 'main.cpp' tab is active, displaying a list of numbers: 5, 6, 8, 9, 4, 3, 7, 10, 8, 9. Below the list, a message states 'Process finished with exit code 0'.

```
5  
6  
8  
9  
4  
3  
7  
10  
8  
9  
  
Process finished with exit code 0
```

Q2:

```
#include <iostream>
using namespace std;
int main() {
    int sum=0, product=1;
    int arr[5];
    for (int k = 0; k < 5; ++k) {
        cout<<"Enter a number:";
        cin>>arr[k];
    }
    for (int j = 0; j < 5; ++j) {
        sum=sum+arr[j];
        product=product*arr[j];
    }
    cout<<"The sum = "<<sum<<endl;
    cout<<"The product = 
"<<product<<endl;
    return 0;
}
```

Q 2 (results):

```
1  #include <iostream>
2  using namespace std;
3  int main() {
4      int sum=0, product=1;
5      int n;
6      while(n!=0)
7      {
8          int a;
9          cout<<"Enter a number:"<<endl;
10         cin>>a;
11         sum+=a;
12         product*=a;
13         n--;
14     }
15     cout<<"The sum = "<<sum<<endl;
16     cout<<"The product = "<<product<<endl;
17     return 0;
18 }
```

main

main.cpp x

C:\papers\main.exe

Enter a number:1

Enter a number:2

Enter a number:3

Enter a number:4

Enter a number:5

The sum = 15

The product = 120

Q3:

```
#include <iostream>
using namespace std;
int main() {
    int r = 5, c = 5;
    char arr[r];
    for (int k = 0; k < 5; ++k) {
        arr[k] = ' ';
    }
    if (r % 2 != 0 and c % 2 != 0) {
        for (int i = 0; i <= r / 2;
i++) {
            for (int j = 0; j < c; j++)
{
                arr[c / 2 - i] = '*';
                arr[c / 2 + 1] = '*';
                cout << arr[j] << endl;
            }
        }
    } else {
        cout << " " << endl;
    }
    for (int i = r/2; i < r; i++) {
        for (int j = 0; j < c; j++) {
            if ((j<=(i-1)-c/2) or
(j>=c/2+(c-1))) {
                cout<<" ";
            }else{
                cout<<"*";
            }
        }
    }
}
```

```
}  
return 0;  
}
```