

Fundamentals of Programming

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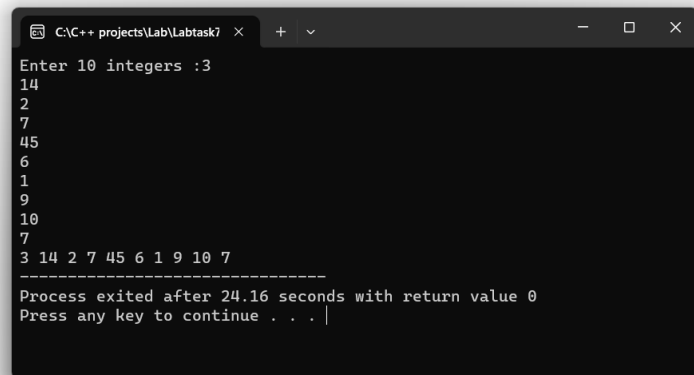
Section: ME-15A

Roll no: 464239

Task1:

```
#include<iostream>
using namespace std;

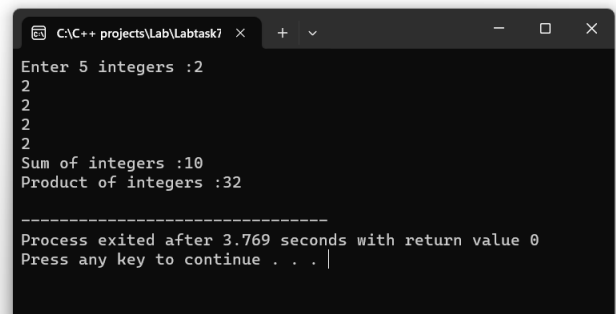
int main()
{ //Take 10 integers inputs and output them.
    int n[10];
    cout<<"Enter 10 integers :";
    for(int i=0; i<10; i++){
        cin>>n[i];
    }
    for(int i=0; i<10; i++){
        cout<<n[i]<<" ";
    }
    return 0;
}
```



```
C:\C++ projects\Lab\Labtask7 x + v
Enter 10 integers :3
14
2
7
45
6
1
9
10
7
3 14 2 7 45 6 1 9 10 7
-----
Process exited after 24.16 seconds with return value 0
Press any key to continue . . . |
```

Task2:

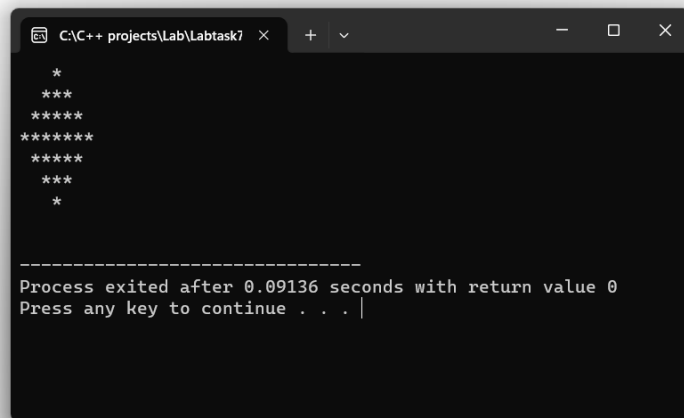
```
{ //To find sum and product of all numbers of an array.
    int a, s=0, p=1;
    int x[5];
    cout<<"Enter 5 integers :";
    for(int a=0; a<5; a++){
        cin>>x[a];
    }
    for(int a=0; a<5; a++){
        s=s+x[a];
        p=p*x[a];
    }
    cout<<"Sum of integers :"<<s<<endl;
    cout<<"Product of integers :"<<p<<endl;
    return 0;
}
```



```
C:\C++ projects\Lab\Labtask7 x + v
Enter 5 integers :2
2
2
2
2
2
Sum of integers :10
Product of integers :32
-----
Process exited after 3.769 seconds with return value 0
Press any key to continue . . . |
```

Task3:

```
{    //Print daimond using array.
    int x=7;
    char s[x];
    int half=x/2;
    for(int i=0; i<7; i++){
        s[i]=' ';
    }
    for(int i=0; i<=half; i++){
        for(int j=0; j<x; j++){
            s[half+i]='*';
            s[half-i]='*';
            cout<<s[j];
        }
        cout<<endl;
    }
    for(int i=half; i>=0; i--){
        for(int j=0; j<x; j++){
            s[half+i]=' ';
            s[half-i]=' ';
            cout<<s[j];
        }
        cout<<endl;
    }
    return 0;
}
```



The screenshot shows a Windows command prompt window titled "C:\C++ projects\Lab\Labtask7". The output displays a diamond pattern of asterisks. The first half of the diamond is formed by the first loop, and the second half is formed by the second loop. The pattern is symmetric around a central horizontal line. Below the pattern, the program outputs the message "Process exited after 0.09136 seconds with return value 0" and "Press any key to continue . . .".

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

-----
Process exited after 0.09136 seconds with return value 0
Press any key to continue . . .
```