



CS-114 - Fundamental of Programing

Lab task # 07

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DATE:

15/11/2023

Task 1

```
#include <iostream>
using namespace std;
int main ()
{
    int a [10]={} ;
    for (int i=0 ; i<10;i++) {
        cout<<"enter number"<<endl;
        cin>>a[i];
    }
    for (int j=0; j<10; j++) {
        cout<<a[j]<<",";
    }
    return 0;
}
```

output

```
enter number
1
enter number
2
enter number
3
enter number
4
enter number
5
enter number
6
enter number
7
enter number
8
enter number
9
enter number
10
1,2,3,4,5,6,7,8,9,10,
-----
Process exited after 7.346 seconds with return value 0
Press any key to continue . . .
```

Task 2

```
///
{
    int a[5]={} , b[5]={} , sum1=0, sum2=0, sum=0, p1=1, p2=1, product=1;
    for (int i=0; i<5;i++) {
        cout<<"enter number for 1st array"<<endl;
        cin>>a[i];
    }
    for (int j=0; j<5;j++) {
        cout<<"enter number for 2nd array"<<endl;
        cin>>b[j];
    }
    for (int i=0; i<5;i++) {
        sum1 = sum1 + a[i] ;
        p1 = p1 * a[i] ;
    }
    for (int j=0; j<5;j++) {
        sum2 = sum2 + b[j] ;
        p2 = p2 * b[j] ;
    }
    sum= sum1 + sum2;
    cout<<"sum ="<<sum<<endl;
    product= p1 * p2;
    cout<<"product ="<<product;
    return 0;
}
```

Output

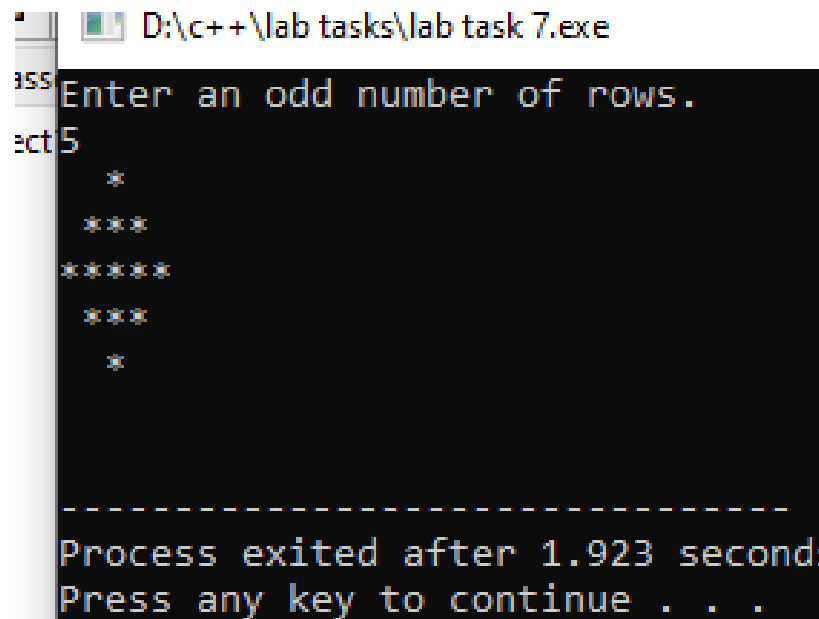
```
enter number for 1st array
1
enter number for 1st array
2
enter number for 1st array
3
enter number for 1st array
4
enter number for 1st array
5
enter number for 2nd array
1
enter number for 2nd array
2
enter number for 2nd array
3
enter number for 2nd array
4
enter number for 2nd array
5
sum =30
product =14400
-----
Process exited after 6.175 seconds with return value 0
Press any key to continue . . .
```

Task 3

```
int n;
cout<<"Enter an odd number of rows."<<endl;
cin>>n;
int half=n/2;
char diamond[n];
for (int i=0;i<n;i++){
    diamond[i]=' ';
}
for (int i=0;i<=half;i++){
    for (int j=0;j<n;j++){
        diamond[half+i]='*';
        diamond[half-i]='*';
        cout<<diamond[j];
    }
    cout<<endl;
}

for (int i=0;i<n;i++){
    diamond[i]='*';
}
for (int i=half;i>=0;i--){
    for (int j=0;j<n;j++){
        diamond[half+i]=' ';
        diamond[half-i]=' ';
        cout<<diamond[j];
    }
    cout<<endl;
}
}
```

Output



```
D:\c++\lab tasks\lab task 7.exe
Enter an odd number of rows.
5
*
***
*****
***
*

-----
Process exited after 1.923 second.
Press any key to continue . . .
```