



# FUNDAMENTAL OF PROGRAMMING

LAB REPORT 7

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**Take 10 integer inputs from user and store them in an array and print them on screen.**

**CODE:**

```
#include<iostream>

using namespace std;

int main(){

int arr[10];

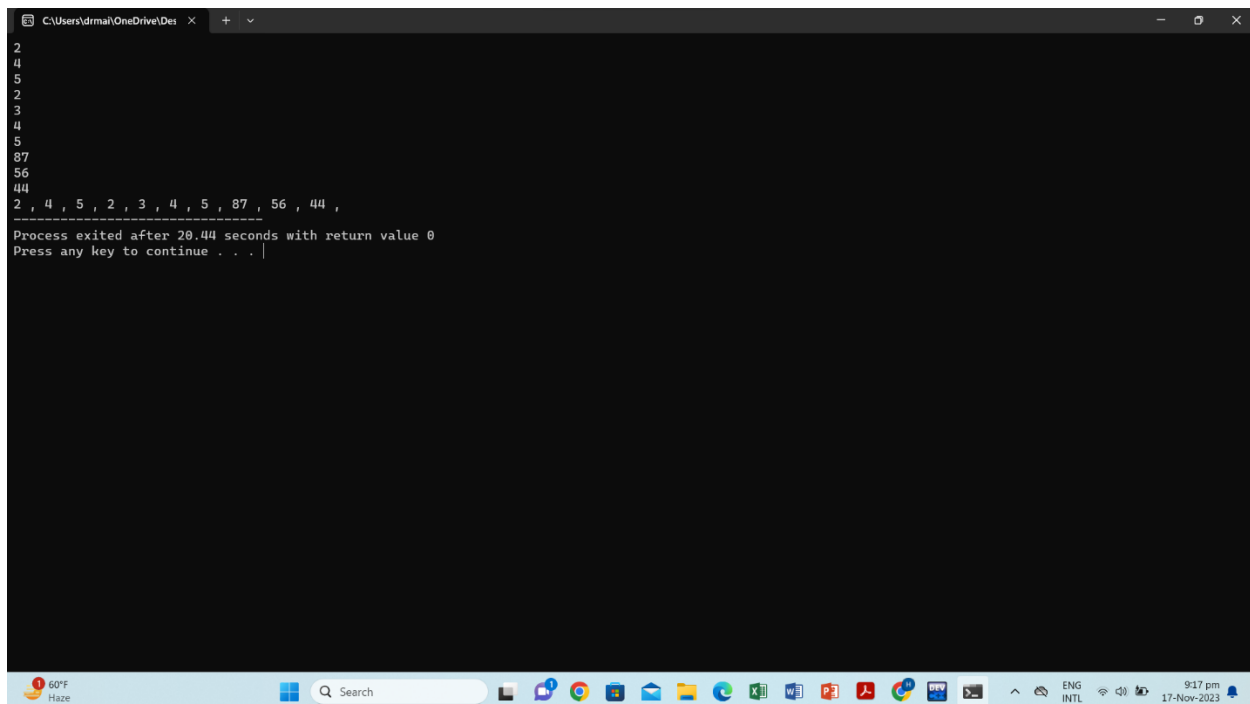
for(int x=0;x<10;x++){

cin>>arr[x];}

for(int x=0;x<10;x++){

cout<<arr[x]<<" , ";} }
```

**OUTPUT:**



```
C:\Users\drmail\OneDrive\Des
2
4
5
2
3
4
5
87
56
44
2 , 4 , 5 , 2 , 3 , 4 , 5 , 87 , 56 , 44 ,
-----
Process exited after 20.44 seconds with return value 0
Press any key to continue . . .
```

**Write a program to find the sum and product of all elements of an array with 5 integer elements.**

**CODE:**

```
#include<iostream>

using namespace std;

int main(){

    int arr[]={1,2,3,4,5};

    int sum=0;

    int product;

    for(int x=0;x<5;x++){

        sum=sum+arr[x];    }

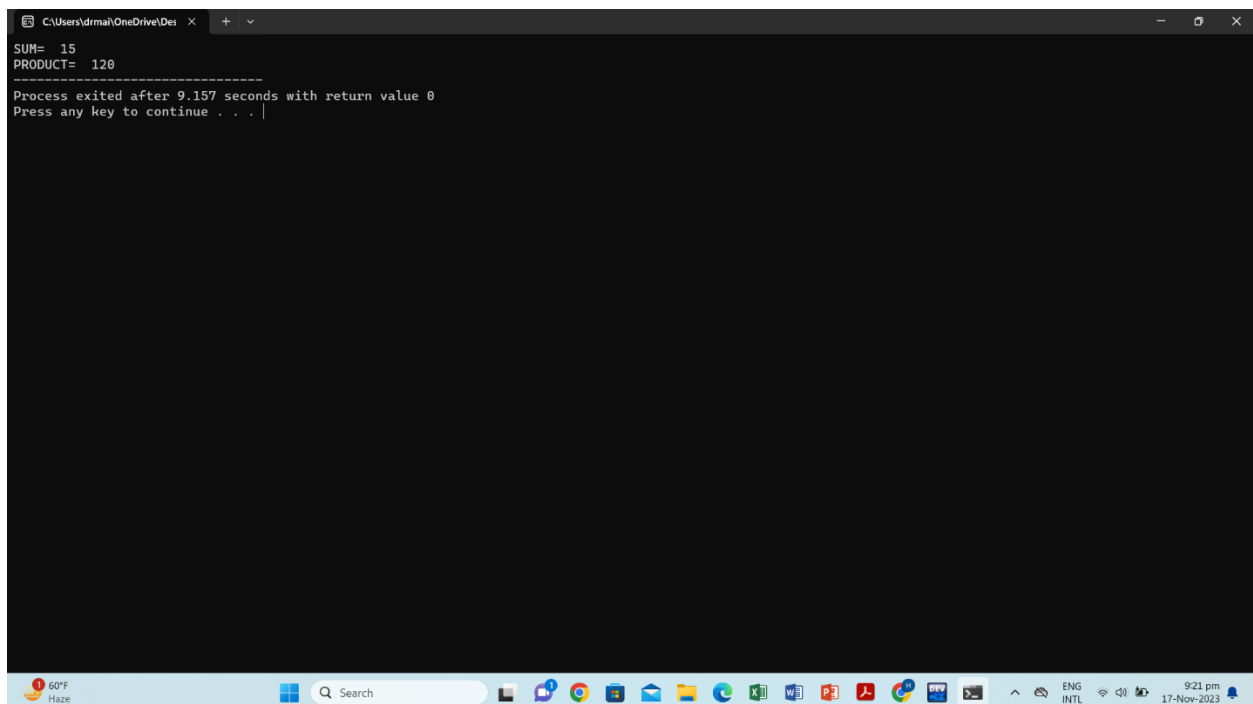
    cout<<"SUM= "<<sum<<endl;

    for(int x=0;x<5;x++){

        product=product*arr[x];}

    cout<<"PRODUCT= "<<product;}
```

**OUTPUT:**



```
C:\Users\drmai\OneDrive\Des  x  +  v
SUM= 15
PRODUCT= 120
-----
Process exited after 9.157 seconds with return value 0
Press any key to continue . . .
```

## Print diamond pattern using a single array.

### CODE:

```
#include<iostream>

using namespace std;

int main(){

    int r=9,c=9;

    char dia[c];

    for (int i=0;i<c;i++){

        dia[i] = ' '; }

    for (int j=0;j<r/2;j++){ //for loop to print up side of diamond

        for (int k=0;k<c;k++){

            if (k >=c/2-j&& k<=c/2+j){

                dia[k]='*';

            } else{

                dia[k] = ' ';

            }

            cout<<dia[k];

        }

        cout<<endl;

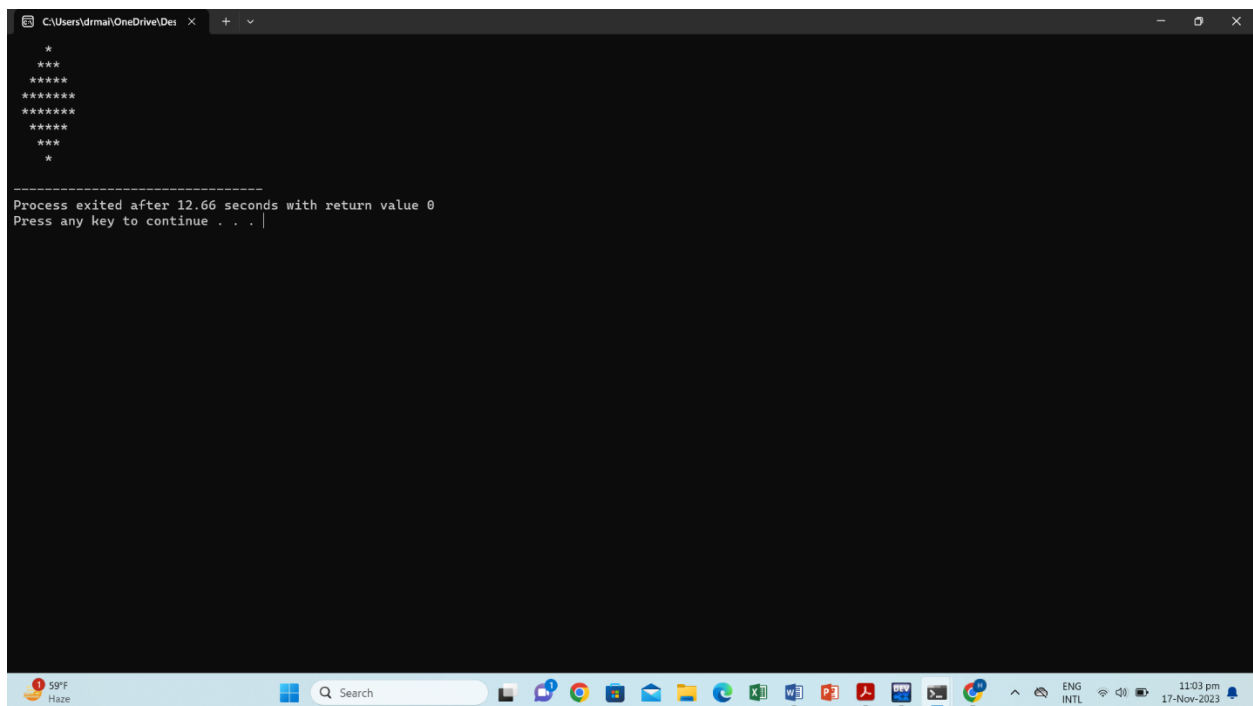
    }

    for(int k=0;k<r/2;k++){ //for loop to print lower side of diamond

        for (int i=0;i<c;i++){
```

```
    if (i>=k+1&& i<=c-(k+2)) {  
        dia[i]='*';  
    } else{  
        dia[i]=' ' ;}  
    cout<<dia[i];}  
cout<<endl; } }
```

## OUTPUT:



```
C:\Users\drmai\OneDrive\Des > + v  
*  
***  
*****  
*****  
*****  
*****  
***  
*  
-----  
Process exited after 12.66 seconds with return value 0  
Press any key to continue . . .
```