NUST

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CLASS: ME 15 C

Q01 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 var[10] ;
	cout<<"Enter the nmbers: "<<endl;
   for(int i=0;i<10;i++){
	cin>>var[i];
	}
	for(int i=0;i<10;i++){
		cout<<var[i]<<" ";
	}
	return 0;
}
```

RESULT:

```
Enter the nmbers:
12
324
546
764
235
85
48
4676
4567
3457
12 324 546 764 235 85 48 4676 4567 3457
--------------------------------
Process exited after 16.7 seconds with return value 0
Press any key to continue . . .
```

Q 02 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 res[5];
	int sum=0;
	int product=1;
	cout<<"ENTER THE NUMBERS: "<<endl;
	for(int i=0;i<5;i++){
		cin>>res[i];
		sum=sum+res[i];
	  product=product*res[i];
}
   cout<<"SUM = "<<sum<<endl;
	cout<<"PRODUCT = "<<product;
	return 0;
}
```

RESULT:

```
ENTER THE NUMBERS:
1
2
3
4
5
SUM = 15
PRODUCT = 120
--------------------------------
Process exited after 4.131 seconds with return value 0
Press any key to continue . . .
```

Q 03 Print diamond pattern using a single array.

CODE:

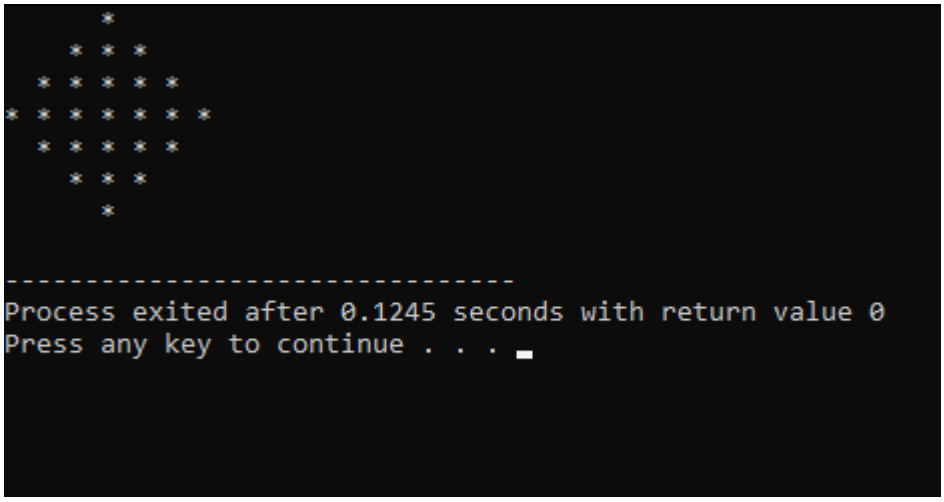
```
#include <iostream>
using namespace std;

int main() {
   int row= 7;
   char diamondArray[row*row];
```

```
    for (int i=0;i<row*row;i++) {
        diamondArray[i] =' ';
    }

    for (int i=0;i<=row/2;i++) {
        for (int j=row/2-i; j<=row/2+i;j++) {
            diamondArray[i*row+j]='*';
        }
    }
    for (int i=row/2+1;i<row;i++) {
        for (int j=i-row/2; j<3*row/2-i;j++) {
            diamondArray[i*row+j]='*';
        }
    }
    for (int i=0;i<row;i++) {
        for (int j=0; j<row;j++) {
            cout << diamondArray[i*row+j]<<' ';
        }
        cout << endl;
    }
    return 0;
}
```

RESULT:


*
* * *
* * * * *
* * * * * * *
* * * * *
* * *
*

Process exited after 0.1245 seconds with return value 0
Press any key to continue . . .