



NUST

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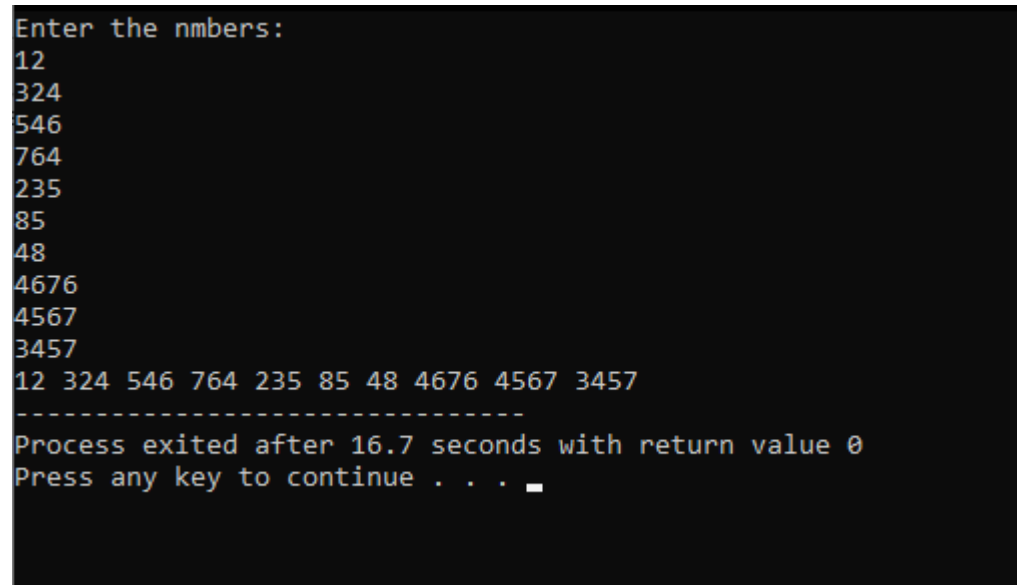
CLASS: ME 15 C

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:

A screenshot of a terminal window with a black background and light blue/green text. It shows the execution of a C++ program. The prompt "Enter the nmbers:" is followed by 10 lines of input: 12, 324, 546, 764, 235, 85, 48, 4676, 4567, and 3457. After the inputs, the program prints all 10 numbers on a single line: "12 324 546 764 235 85 48 4676 4567 3457". Below this, a separator line of dashes is shown, followed by the message "Process exited after 16.7 seconds with return value 0" and "Press any key to continue . . .".

```
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:

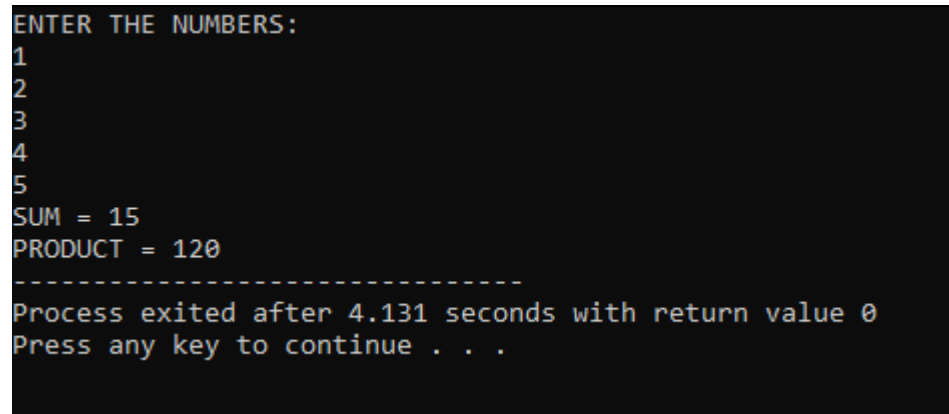
```
#include<iostream>
```

```

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 . . . █
```