ME15C

FOP MANUAL 07

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[MANUAL 07 LAB TASKS]

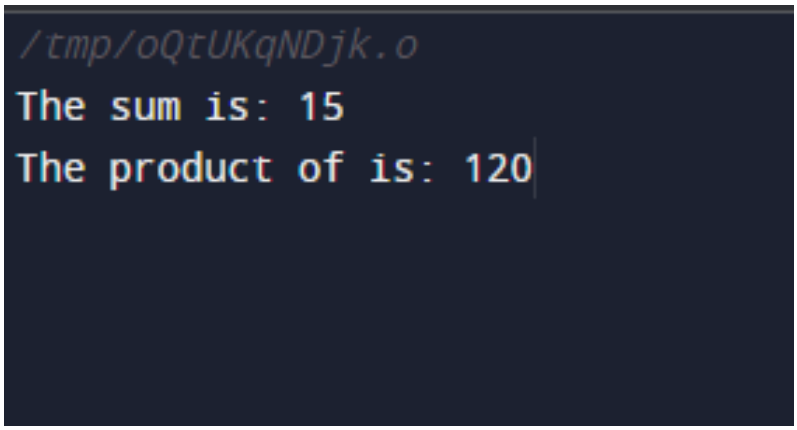
Take 10 integer inputs from user and store them in an array and print them on screen

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

int main()
{
   // Declaring an array of size 10
   int arr[10];

   // Getting input
   cout << "Enter 10 integers: \n";

   // using a loop to store the inputs in the array
   for (int i = 0; i < 10; i++)
   {
      cin >> arr[i];
   }

   cout << "The array elements are: \n";

   // Using another loop to print the array elements
   for (int i = 0; i < 10; i++)
   {
      cout << arr[i] << " ";
   }
   cout << "\n";
   return 0;
}
```

```
Enter 10 integers:
5

5
8
9
7
2
1
2
5
5
The array elements are:
5 5 8 9 7 2 1 2 5 5
```

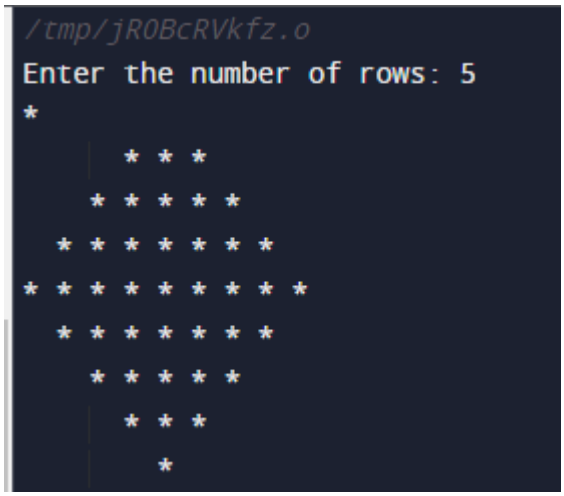
Write a program to find the sum and product of all elements of an array with 5 integer elements.

```
#include <iostream>
using namespace std;
int main()
{
   // Declaring an array of size 5
   int arr[5] = {1, 2, 3, 4, 5};
 // Declaring variables
   int sum = 0, product = 1;
   for (int i = 0; i < 5; i++)
   {
      // Adding the current element to the sum
      sum += arr[i];
 // Multiplying the current element to the product
      product *= arr[i];
   }
   cout << "The sum is: " << sum <<endl;
   cout << "The product of is: " << product;
   return 0;
}
```



Print diamond pattern using a single array.

```
#include <iostream>
using namespace std;
int main() {
    int n;
    cout << "Enter the number of rows: ";
    cin >> n;
  int size = 2 * n - 1;
    char arr[size * size];
 for (int i = 0; i < size * size; i++) {
        arr[i] = ' ';
    }
 int mid = size / 2;
    for (int i = 0; i < n; i++) {
        for (int j = mid - i; j <= mid + i; j++) {
            arr[i * size + j] = '*';
            arr[(size - 1 - i) * size + j] = '*';
        }
    }

    for (int i = 0; i < size * size; i++) {
        cout << arr[i] << " ";
        if ((i + 1) % size == 0) {
            cout << endl;
        }
    }

    return 0;
}
```


/tmp/jR0BcRVkfz.o
Enter the number of rows: 5
*
* * *
* * * * *
* * * * * * *
* * * * * * * * *
* * * * * * *
* * * * *
* * *
*