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

int main() {
    //Task1
    int arr1[10];
    int x;
    cout << "Enter a number: ";
    for (int i = 0; i < 10; i++) {
        cin >> x;              //Takes a number for input
        arr1[i] = x;           //Appends each number input to the array
according to the order in which the numbers were entered.
    }
    cout << "Arr1 = ";
    for (int j = 0; j < 10; j++) {
        cout << " " << arr1[j] << " "; //Prints each element of the array
    }
    cout << endl;

    //Task2: Finds sum and product of all the elements in the array
    int arr2[5] = { 4,7,11,18,19 };
    int sum = 0;
    int product = 1;
    for (int k = 0; k < 5; k++) {
        sum = sum + arr2[k];
    }
    cout << "The sum of each element is: " << sum << endl;
    for (int m = 0; m < 5; m++) {
        product = product * arr2[m];
    }
    cout << "The product of each element is: " << product << endl;


    //Task3
    int a = 7;
    int half = a / 2;
    char diamond[7];
    for (int c = 0; c < a; c++) {
        diamond[c] = ' ';
    }
    for (int d = 0; d <= half; d++) {
        for (int e = 0; e < a; e++) {
            diamond[half + d] = '*';
            diamond[half - d] = '*';
            cout << diamond[e];
        }
        cout << endl;
    }


    return 0;
}
```

```
Enter a number: 1
2
3
4
5
6
7
8
9
10
Arr1 =  1  2  3  4  5  6  7  8  9  10
The sum of each element is: 59
The product of each element is: 105336
    *
   ***
  *****
 *******

F:\Cppcode\UniLab\x64\Debug\UniLab.exe (process 1352) exited with code 0.
Press any key to close this window . . .
```