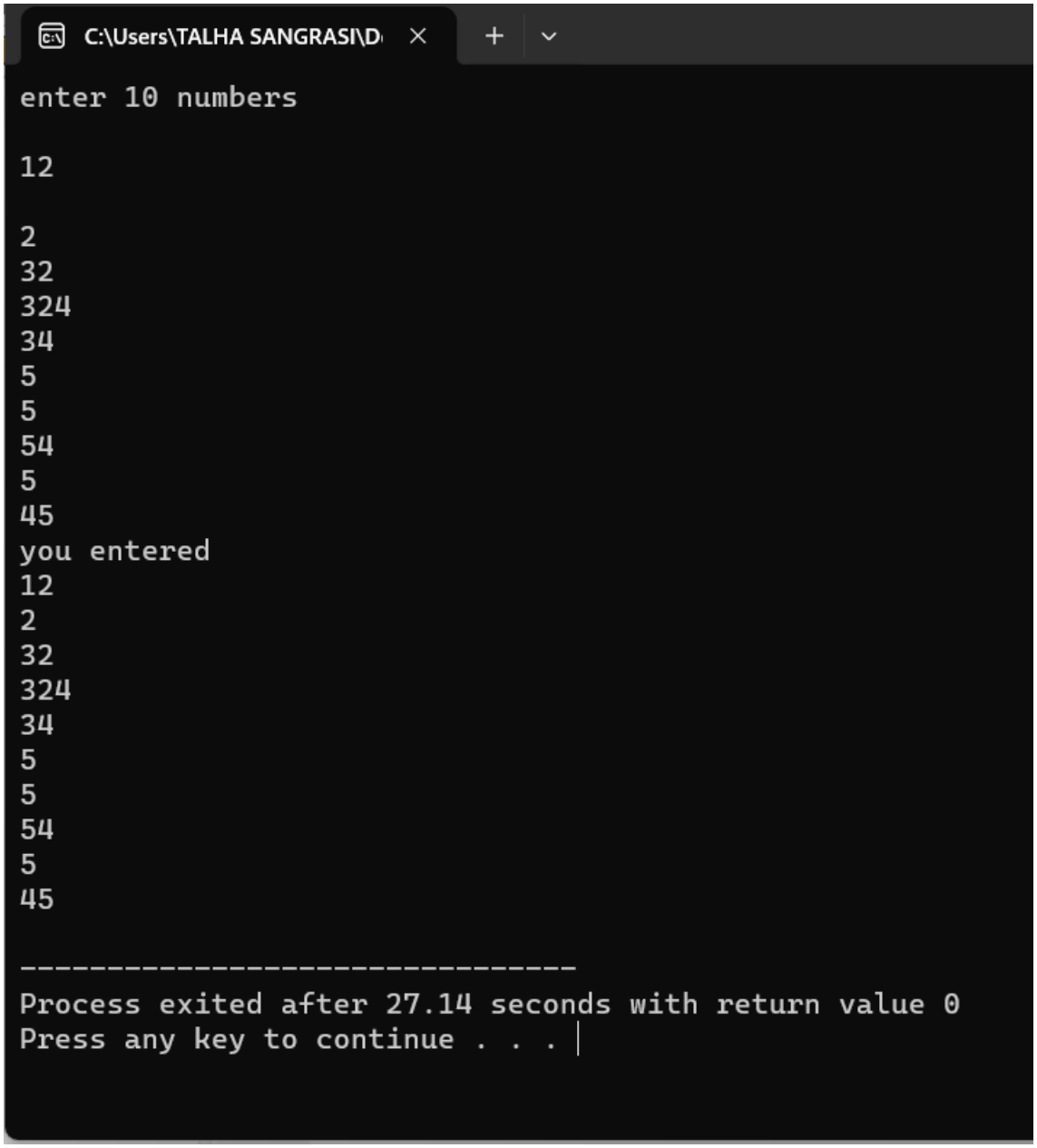
Lab manual 07

Lab task submission

Task 01

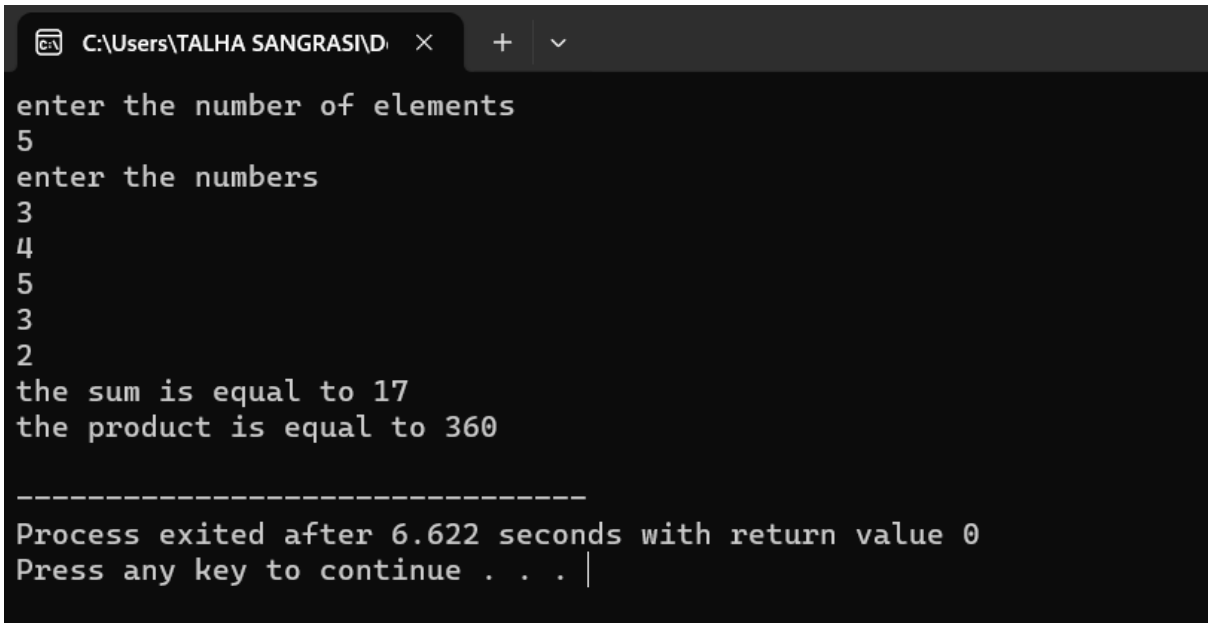
```
#include <iostream>
using namespace std;
int main()
{
	int array [10];
	int i;
	cout<<"enter 10 numbers \n";
	for (i=0;i<10;i++){
		cin>>array[i];
	}
	cout<<"you entered \n";
	for(i=0;i<10;i++){
		cout<<array[i]<<endl;
	}
}
```



Task 02

```
#include <iostream>

using namespace std;

int main()

{

        int n;

        int array[n];
```

```
        int sum(0),product(1),i;
        cout<<"enter the number of elements \n";
        cin>>n;
        cout<<"enter the numbers \n";
        for(i=0;i<n;i++){
                cin>>array[i];
        }
        for(i=0;i<n;i++){
                sum+=array[i];
                product*=array[i];
        }
        cout<<"the sum is equal to "<<sum<<endl;
        cout<<"the product is equal to "<<product<<endl;
}
```



Task 03

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

int main() {
    int size;
    cout << "Enter the size of the diamond: ";
    cin >> size;

    const int MAX_SIZE = 2 * size - 1;
    string diamond[MAX_SIZE];

    // Upper part of the diamond
    for (int row = 1; row <= size; row++) {
        string line = "";
        for (int space = 1; space <= size - row; space++) {
            line += " ";
        }
        for (int star = 1; star <= 2 * row - 1; star++) {
            line += "* ";
        }
        diamond[row - 1] = line;
    }

    // Lower part of the diamond
    for (int row = size - 1; row >= 1; row--) {
        string line = "";
        for (int space = 1; space <= size - row; space++) {
```

```
            line += " ";
        }
        for (int star = 1; star <= 2 * row - 1; star++) {
            line += "* ";
        }
        diamond[MAX_SIZE - row] = line;
    }

    // Print the diamond from the array
    for (int i = 0; i < MAX_SIZE; i++) {
        cout << diamond[i] << endl;
    }


}
```