

Lab manual 6

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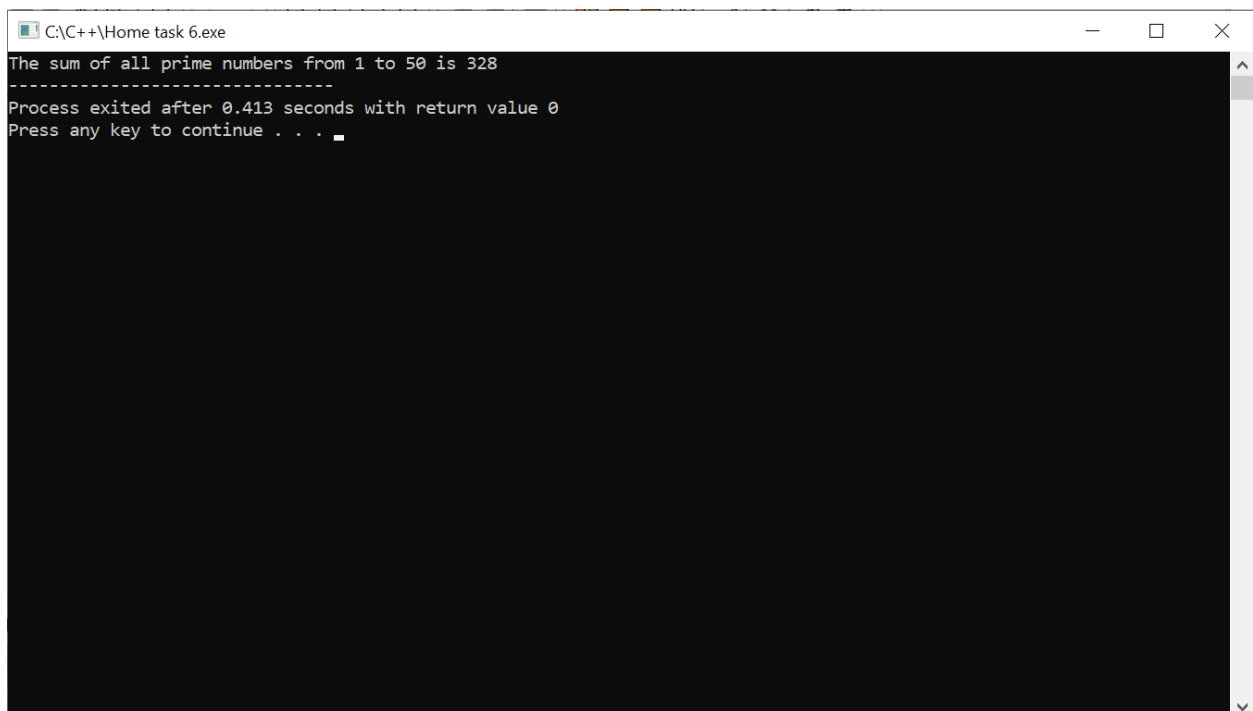
- Task 1: Write a program using break or continue statement that only adds prime numbers from 1 to 50 and display the sum on screen.

```
int sum=0;

bool prime;

for (int i=2;i<=50;i++){
    prime=true;
    for(int j=2;j<i;j++){
        if(i%j==0){
            prime=false;
            break;
        }
    }
    if(prime==true){
        sum+=i;
    }
}

cout<<"The sum of all prime numbers from 1 to 50 is "<<sum;
```



The screenshot shows a Windows command prompt window titled "C:\C++\Home task 6.exe". The output of the program is displayed as follows:

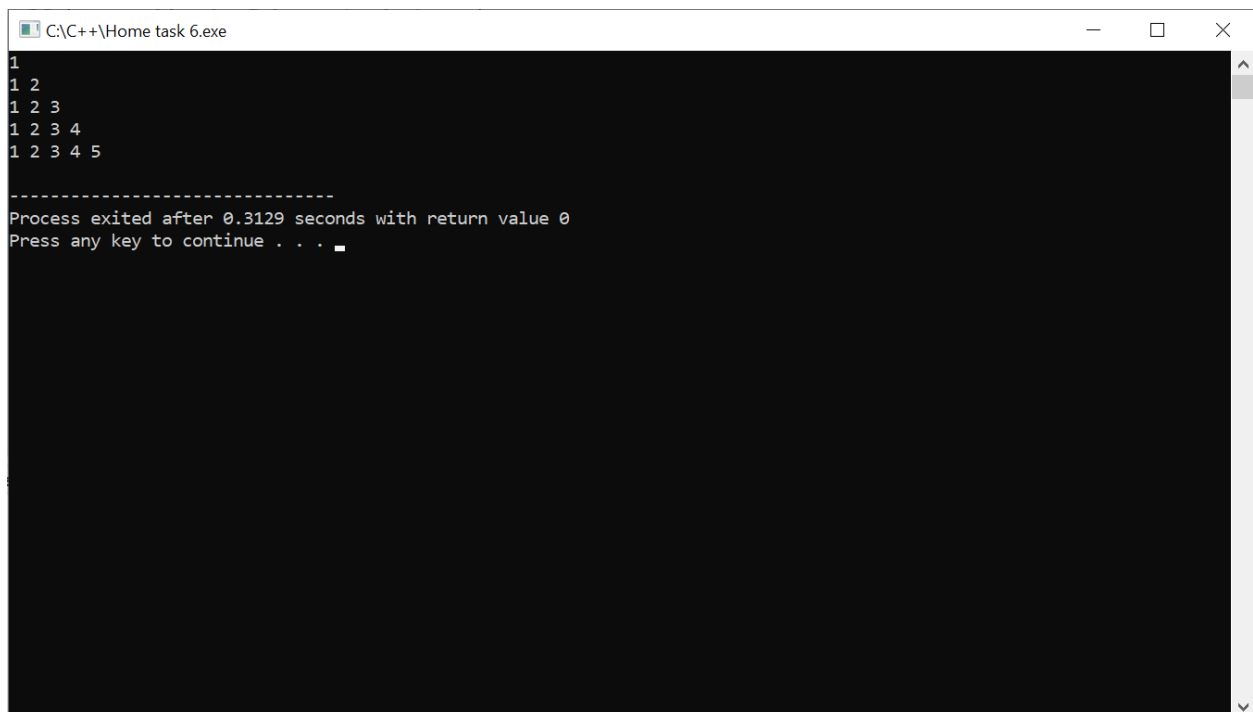
```
The sum of all prime numbers from 1 to 50 is 328
-----
Process exited after 0.413 seconds with return value 0
Press any key to continue . . .
```

- Task 2: Write a program in C++ to create the following pattern.

```
1
1 2
1 2 3
1 2 3 4
1 2 3 4 5
```

```
for(int r=1; r<=5; r++){
    for(int i=1; i<=r; i++){
        cout<<i<<" ";

    }
    cout<<endl;
}
```

A screenshot of a Windows command prompt window titled "C:\C++\Home task 6.exe". The window displays the output of the C++ program, which is a pattern of numbers from 1 to 5 arranged in five rows. Below the pattern, a separator line of dashes is shown, followed by the text "Process exited after 0.3129 seconds with return value 0" and "Press any key to continue . . .". The cursor is positioned at the end of the second line of the continuation text.

```
C:\C++\Home task 6.exe
1
1 2
1 2 3
1 2 3 4
1 2 3 4 5

-----
Process exited after 0.3129 seconds with return value 0
Press any key to continue . . .
```

- Task 3: Write a C++ program to print:

1

2 2

4 4 4 4

6 6 6 6 6 6

```
int num=1;

    cout<<num;

    for(int r=0; r<=6; r+=2){

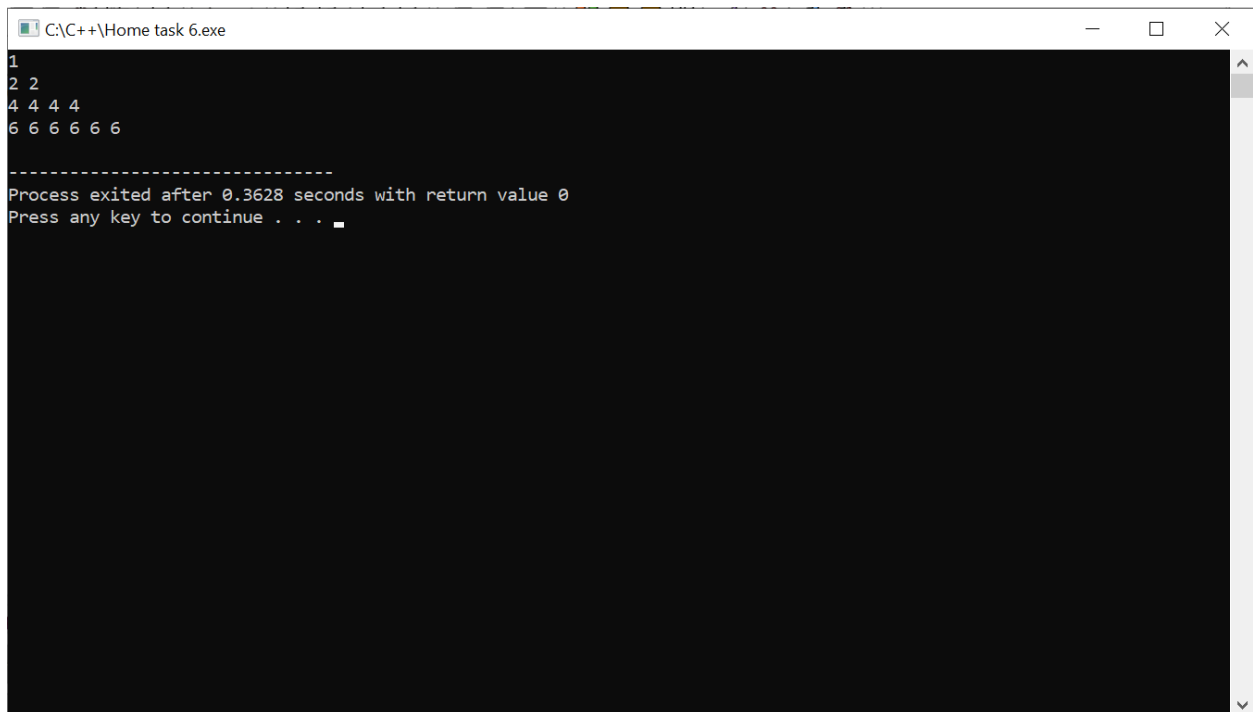
        for(int i=1;i<=r;i++){

            cout<<r<<" ";

        }

        cout<<endl;

    }
```

A screenshot of a Windows command prompt window titled "C:\C++\Home task 6.exe". The window displays the output of the C++ program: the numbers 1, 2 2, 4 4 4 4, and 6 6 6 6 6 6, each on a new line. Below the output, a separator line of dashes is shown, followed by the text "Process exited after 0.3628 seconds with return value 0" and "Press any key to continue . . .". The window has standard Windows window controls (minimize, maximize, close) in the top right corner.

```
C:\C++\Home task 6.exe
1
2 2
4 4 4 4
6 6 6 6 6 6

-----
Process exited after 0.3628 seconds with return value 0
Press any key to continue . . .
```