



NATIONAL UNIVERSITY OF SCIENCES & TECHNOLOGY

SCHOOL OF MECHANICAL AND MANUFACTURING ENGINEERING

SEMESTER # 01

CLASS: - ME 15 [SEC A]

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Fundamentals of Programming

HOME TASK 06

Date of Submission 29 NOV 2023

Submitted to MUHAMMAD AFFAN

QUESTION NUMBER 01

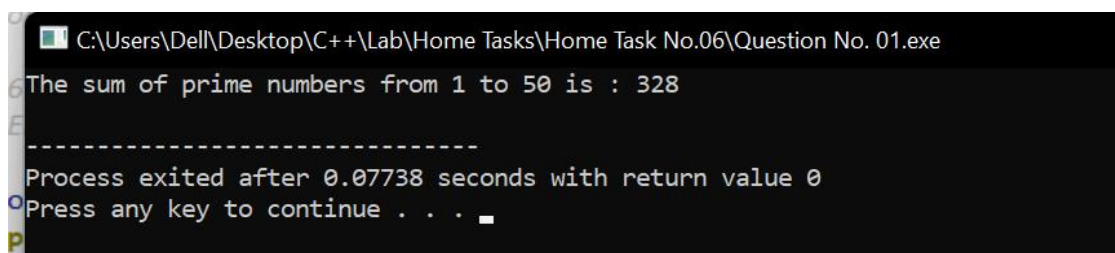
/*
Write a program using break or continue statement that only adds prime numbers from 1 to 50
and display the sum on screen.

HOME TASK 6 Q#03

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```
*/  
#include <iostream>  
using namespace std;  
int main()  
{  
    int sum=0;          //declaring sum equals to 0  
    for (int i=2; i<=50; i++) //using for loop for i  
    {  
        bool prime=true; //using boolean  
  
        for (int j=2; j<i; j++) //using for loop for j  
        {  
            if (i%j==0) //is i exactly divisible on j  
            {  
                prime=false;  
                break;  
            }  
        }  
        if (prime)  
        {  
            sum += i; //if number is prime then it will be added in sum  
        }  
    }  
    cout << "The sum of prime numbers from 1 to 50 is : " << sum << endl; //printing sum  
    return 0;  
}
```

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



C:\Users\Dell\Desktop\C++\Lab\Home Tasks\Home Task No.06\Question No. 01.exe
The sum of prime numbers from 1 to 50 is : 328

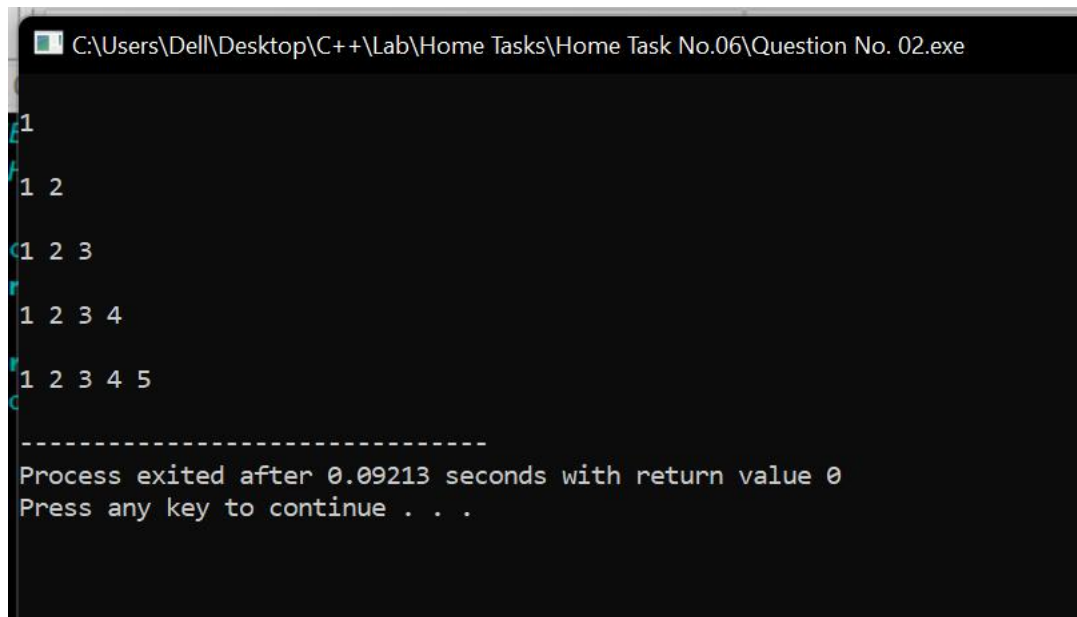
Process exited after 0.07738 seconds with return value 0
Press any key to continue . . .

QUESTION NUMBER 02

```
/*  
HOME TASK 6 Q#02  
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*/  
#include <iostream>  
using namespace std;  
int main() {  
    for (int i=1;i<=5;i++){ //using for loop for 5 rows  
        cout<<endl; //going to next line  
  
        for(int j=1;j<=i;j++) //using nested for loop for columns  
        {  
            cout<<j<<" "; //printing j  
        }  
        cout<<endl; //next line.  
  
    }  
    return 0;  
}
```

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
```



The screenshot shows a Windows command prompt window titled "C:\Users\Dell\Desktop\C++\Lab\Home Tasks\Home Task No.06\Question No. 02.exe". The output of the program is displayed as follows:

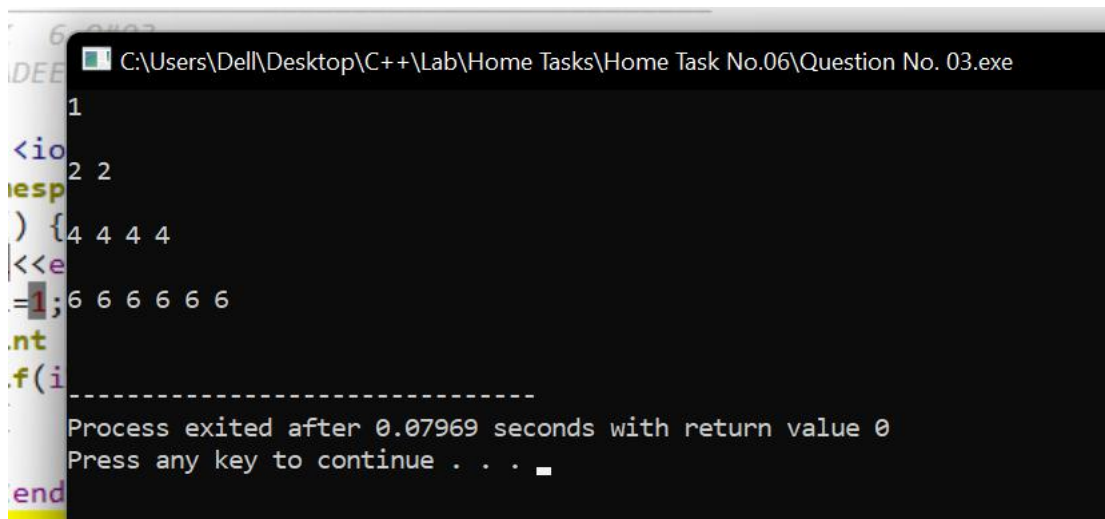
```
1  
1 2  
1 2 3  
1 2 3 4  
1 2 3 4 5  
-----  
Process exited after 0.09213 seconds with return value 0  
Press any key to continue . . .
```

QUESTION NUMBER 03

```
/*  
_____  
HOME TASK 6 Q#03  
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*/  
#include <iostream>  
using namespace std;  
int main() {  
    cout<<1<<endl; //printing 1  
    for(int i=1; i<=7; i++){ //using for loop  
        for(int j=1; j<=i; j++){ //using nested for  
            if(i%2==0) //if i is exactly divisible by 2  
            {          cout<<i<<" ";} //printing i  
        }  
        cout<<endl; //next line  
    }  
    return 0;  
}
```

Write a C++ program
to print:

```
1  
2 2  
4 4 4 4  
6 6 6 6 6 6
```



The screenshot shows a Windows command prompt window titled "C:\Users\Dell\Desktop\C++\Lab\Home Tasks\Home Task No.06\Question No. 03.exe". The output of the program is displayed as follows:

```
1  
2 2  
4 4 4 4  
6 6 6 6 6 6  
-----  
Process exited after 0.07969 seconds with return value 0  
Press any key to continue . . .
```