



NUST

NATIONAL UNIVERSITY
OF SCIENCES & TECHNOLOGY

Programming lab Home Task

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Section C

C++ program using a
break statement to
add prime numbers
from 1 to 50 and
display the sum:

```
#include <iostream>
```

```
using namespace std;
```

```
bool isPrime(int num) {  
    if (num < 2) {  
        return false;  
    }  
    for (int i = 2; i <=  
num / 2; ++i) {  
        if (num % i ==  
0) {  
            return  
false;  
        }  
    }  
    return true;  
}
```

```
int main() {  
    int sumPrimes = 0;  
    for (int number = 1;  
number <= 50;  
++number) {  
        if  
(isPrime(number)) {
```

```

sumPrimes += number;
    }
}
cout << "Sum of
prime numbers from 1 to
50: " << sumPrimes <<
endl;

return 0;
}

```

**C++ program to
create the specified
pattern:**

```

#include <iostream>

using namespace std;

int main() {
    for (int i = 1; i <= 5;
++i) {
        for (int j = 1; j
<= i; ++j) {
            cout << j;
        }
        cout << endl;
    }
    return 0;
}

```

**C++ program to print
the specified pattern:**

```

#include <iostream>

```

```
using namespace std;
```

```
int main() {  
    int count = 1;  
    for (int i = 1; i <= 3;  
++i) {  
        for (int j = 1; j  
<= i; ++j) {  
            cout <<  
count;  
        }  
        count += 2;  
        cout << endl;  
    }  
    return 0;  
}
```