

## FOP Home Tasks (Lab Manual 4)

### Task 1:

```
#include <iostream>
```

```
int main() {
```

```
    for (int s = 1; s <= 150; s++) {
```

```
        if (s % 10 == 0) {
```

```
            continue;
```


```
        }
```

```
        std::cout << s << " ";
```

```
    }
```

```
    return 0;
```

```
}
```

main.cpp	Run	Output
<pre>1 #include &lt;iostream&gt; 2 3 int main() { 4     for (int s = 1; s &lt;= 150; s++) { 5         if (s % 10 == 0) { 6             continue; 7         } 8         std::cout &lt;&lt; s &lt;&lt; " "; 9     } 10 11     return 0; 12 }</pre>		<pre>/tmp/53f9VVVl0c.o 1 2 3 4 5 6 7 8 9 11 12 13 14 15 16 17 18 19 21 22 23 24 25 26 27 28 29 31 32 33 34 35 36 37 38 39 41 42 43 44 45 46 47 48 49 51 52 53 54 55 56 57 58 59 61 62 63 64 65 66 67 68 69 71 72 73 74 75 76 77 78 79 81 82 83 84 85 86 87 88 89 91 92 93 94 95 96 97 98 99 101 102 103 104 105 106 107 108 109 111 112 113 114 115 116 117 118 119 121 122 123 124 125 126 127 128 129 131 132 133 134 135 136 137 138 139 141 142 143 144 145 146 147 148 149</pre>

## Task 2:

```
#include <iostream>
```

```
int main() {
```

```
    int number, sum = 0;
```

```
    std::cout << "Enter the number you want to use ";
```

```
    std::cin >> number;
```

```
    while (number != 0) {
```

```
        sum += number % 10;
```

```
        number /= 10;
```

```
    }
```

```
    std::cout << "The sum of the digits of this number is " << sum << std::endl;
```

```
    return 0;
```

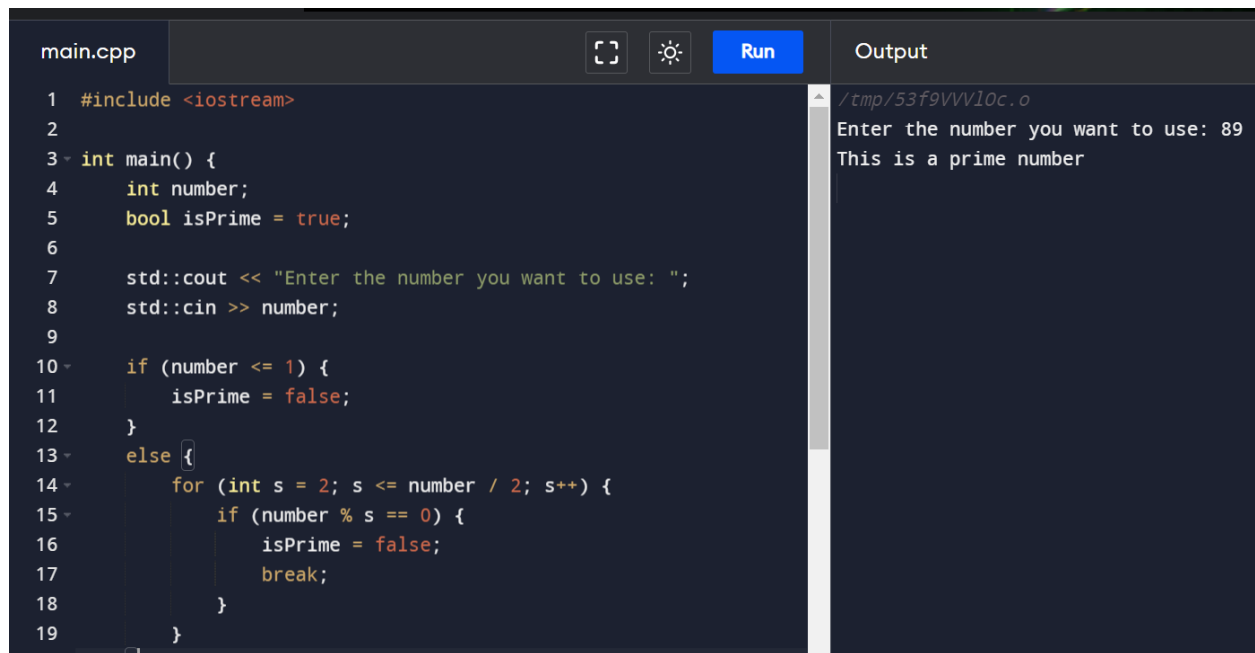
```
}
```

main.cpp	Output
<pre>1  #include &lt;iostream&gt; 2 3  int main() { 4      int number, sum = 0; 5 6      std::cout &lt;&lt; "Enter the number you want to use "; 7      std::cin &gt;&gt; number; 8 9      while (number != 0) { 10         sum += number % 10; 11         number /= 10; 12     } 13 14     std::cout &lt;&lt; "The sum of the digits of this number is " &lt;&lt;         sum &lt;&lt; std::endl; 15 16     return 0; 17 }</pre>	<pre>/tmp/53f9VVV10c.o Enter the number you want to use 89 The sum of the digits of this number is 17</pre>

## Task 3:

```
#include <iostream>
```

```
int main() {  
    int number;  
  
    bool isPrime = true;  
  
    std::cout << "Enter the number you want to use: ";  
  
    std::cin >> number;  
  
    if (number <= 1) {  
        isPrime = false;  
    }  
  
    else {  
        for (int s = 2; s <= number / 2; s++) {  
            if (number % s == 0) {  
                isPrime = false;  
                break;  
            }  
        }  
    }  
  
    if (isPrime) {  
        std::cout << "This is a prime number" << std::endl;  
    }  
  
    else {  
        std::cout << "This is not a prime number." << std::endl;  
    }  
  
    return 0;  
}
```



The image shows a C++ IDE with a dark theme. The editor window displays a file named `main.cpp` containing a C++ program to check if a number is prime. The code includes `<iostream>`, declares `int number;` and `bool isPrime = true;`, prompts the user for input, and uses a loop to check divisibility. The `Run` button is highlighted in blue. The output window on the right shows the program's execution with the input `89` and the output `This is a prime number`.

```
main.cpp
1  #include <iostream>
2
3  int main() {
4      int number;
5      bool isPrime = true;
6
7      std::cout << "Enter the number you want to use: ";
8      std::cin >> number;
9
10     if (number <= 1) {
11         isPrime = false;
12     }
13     else {
14         for (int s = 2; s <= number / 2; s++) {
15             if (number % s == 0) {
16                 isPrime = false;
17                 break;
18             }
19         }
20     }
21 }
```

Output

/tmp/53f9VVV10c.o  
Enter the number you want to use: 89  
This is a prime number