Fop Lab Home Task 4

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Section: B

TASK 1

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

int main()
{
    for(int i=1; i<=150; i++) {
        if (i%10==0) {
            continue;
        }
        cout<<i<<", ";
    }
}
```

Output

```
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, 1
32, 133, 134, 135, 136, 137, 138, 139, 141, 142, 143, 144, 145, 146, 147, 148, 149,
Process returned 0 (0x0)   execution time : 10.371 s
Press any key to continue.
```

Explanation

This code prints numbers from 1 to 150 and skips multiples of 10 using a continue statement. It uses a for loop to iterate over 150 numbers and prints all the numbers except multiples of 10

TASK 2

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

int main()
{
    int num, sum=0;
    cout<<"Enter the number: ";
    cin>>num;

    for (int i=10; i<=100000000; i*=10)
        sum += (num%i)/(i/10);

    cout<<"Sum of the digits is "<<sum;
}
```

Output

```
Enter the number: 23423523
Sum of the digits is 24
Process returned 0 (0x0)   execution time : 43.950 s
Press any key to continue.
```

Explanation

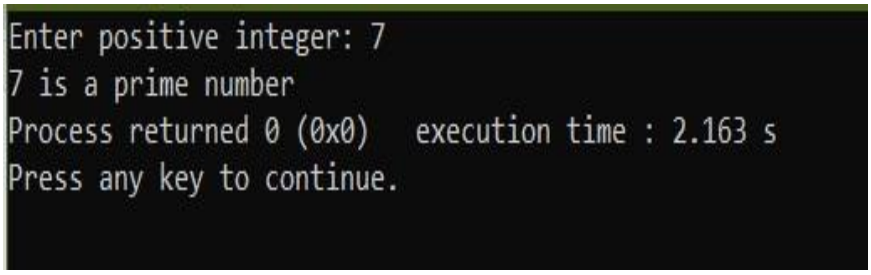
This code takes an integer as an input from user and sums up all the digits of the number. It gets the digit by removing left side by using modulo operator and by removing right side by using division operator.

TASK 3

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

int main()
{
    int num, factors=0;
    cout<<"Enter positive integer: ";
    cin>>num;

    if (num<=0) {
        cout<<"Please enter positive integer greater than 0";
    }
    else {
        for (int i=1; i<=num; i++) {
            if (num%i==0) {
                factors++;
            }
        }
    }

    if (factors==2) {
        cout<<num<<" is a prime number";
    }
    else {
        cout<<num<<" is not a prime number";
    }
}
```

Output

```
Enter positive integer: 35
35 is not a prime number
Process returned 0 (0x0)   execution time : 3.319 s
Press any key to continue.
```



Explanation

This code takes an integer from the user and calculates its factors using a for loop. If the number of factors is 2 then it is a prime number, otherwise it is not a prime number.