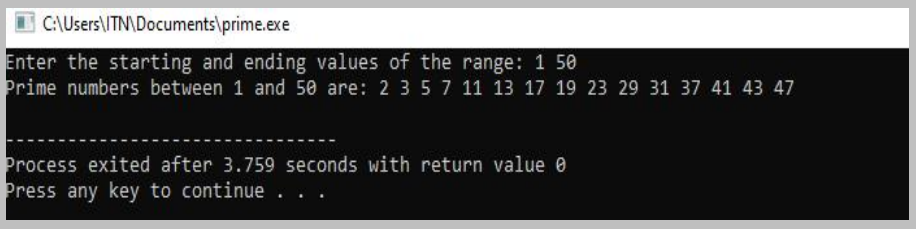
QUESTION NO :1

WRITE A PROGRAM TO FIND PRIME NUMBERS WITH IN A RANGE IN C++.

```
#include <iostream>
using namespace std;
bool isPrime(int num) {
   if (num <= 1) {
      return false;
   }

   for (int i = 2; i * i <= num; ++i) {
      if (num % i == 0) {
         return false;
      }
   }

   return true;
}
void findPrimesInRange(int start, int end) {
   cout << "Prime numbers between " << start << " and " << end << " are: ";

   for (int i = start; i <= end; ++i) {
      if (isPrime(i)) {
         cout << i << " ";
      }
   }

   cout << endl;
}

int main() {
   int start, end;
   cout << "Enter the starting and ending values of the range: ";
   cin >> start >> end;
   findPrimesInRange(start, end);


   return 0;
}
```

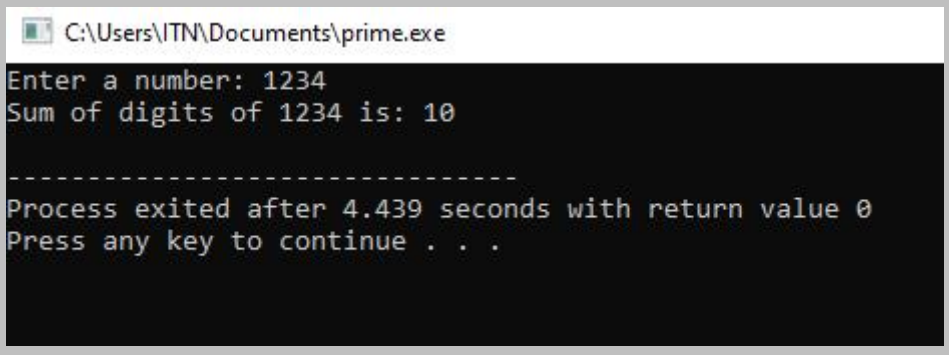


QUESTION NO 2:

WRITE A PROGRAM TO FIND SUM OF A DIGITS OF GIVEN NUMBER.

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


int sumOfDigits(int number) {
   int sum = 0;
   while (number > 0) {
      sum += number % 10;
      number /= 10;
```

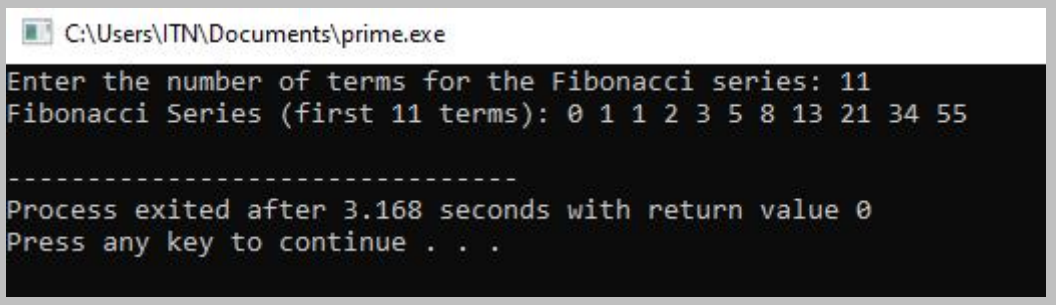
```
    }

    return sum;
}

int main() {
    int num;
    cout << "Enter a number: ";
    cin >> num;
    cout << "Sum of digits of " << num << " is: " << sumOfDigits(num) << endl;

    return 0;
}
```



QUESTION NO 3:

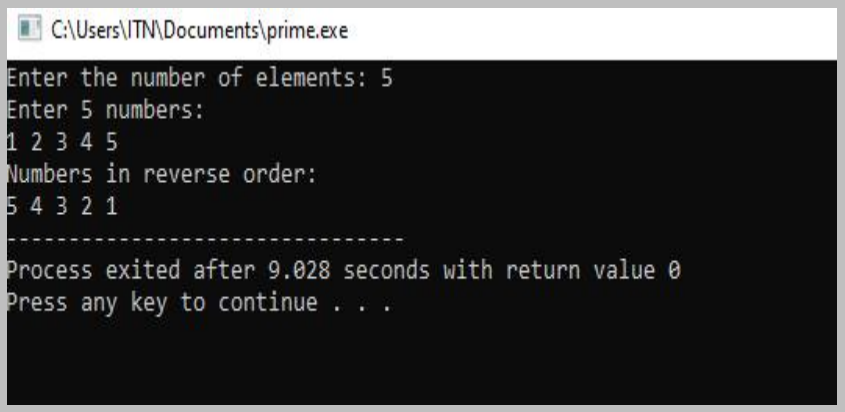
Write a program in C++ to display the first n terms of the Fibonacci series.0 1 1 2 3 5 8 13 21 34.

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


void generateFibonacci(int num) {
    int first = 0, second = 1, next;

    cout << "Fibonacci Series (first " << num << " terms): ";

    for (int i = 0; i < num; ++i) {
        cout << first << " ";

        next = first + second;
        first = second;
        second = next;
    }
    cout << endl;
}

int main() {
    int terms;
    cout << "Enter the number of terms for the Fibonacci series: ";
    cin >> terms;
    generateFibonacci(terms);
            return 0;
}
```



QUESTION NO 4

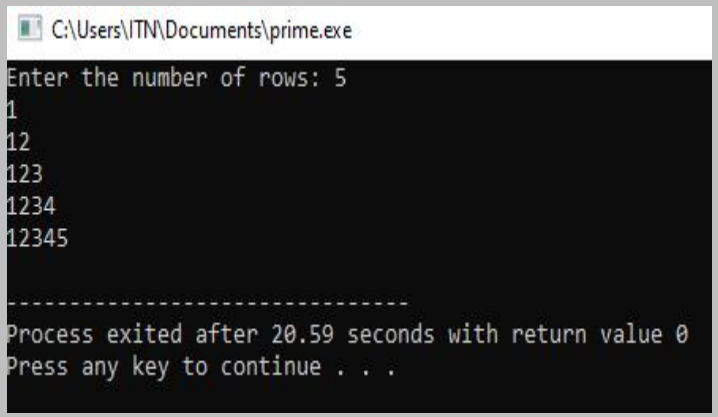
WRITE A PROGRAM IN C++ TO DISPLAY NUMBERS IN REVERSE ORDER




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

int main() {
   int n;
   cout << "Enter the number of elements: ";
   cin >> n;
   int numbers[n];
   cout << "Enter " << n << " numbers:" << endl;
   for (int i = 0; i < n; ++i) {
      cin >> numbers[i];
   }
   cout << "Numbers in reverse order:" << endl;
   for (int i = n - 1; i >= 0; --i) {
      cout << numbers[i] << " ";
   }

   return 0;
}
```

QUESTION NO 5

WRITE A PROGRAM WITH FOLLOWING OUTPUT.




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

int main() {
   int n;
   cout << "Enter the number of rows: ";
   cin >> n;
   for (int i = 1; i <= n; ++i) {
      for (int j = 1; j <= i; ++j) {
         cout << j;
      }
      cout << endl;
   }
```

```
    return 0;
}
```

QUESTION NO 6:

WRITE A PROGRAM TO CHECK WHETHER A NUMBER IS POSITIVE OR NEGATIVE.

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

int main() {
    int number;
    cout << "Enter a number: ";
    cin >> number;
    if (number > 0) {
        cout << "The entered number is positive." << endl;
    } else if (number < 0) {
        cout << "The entered number is negative." << endl;
    } else {
        cout << "The entered number is zero." << endl;
    }

    return 0;
}
```