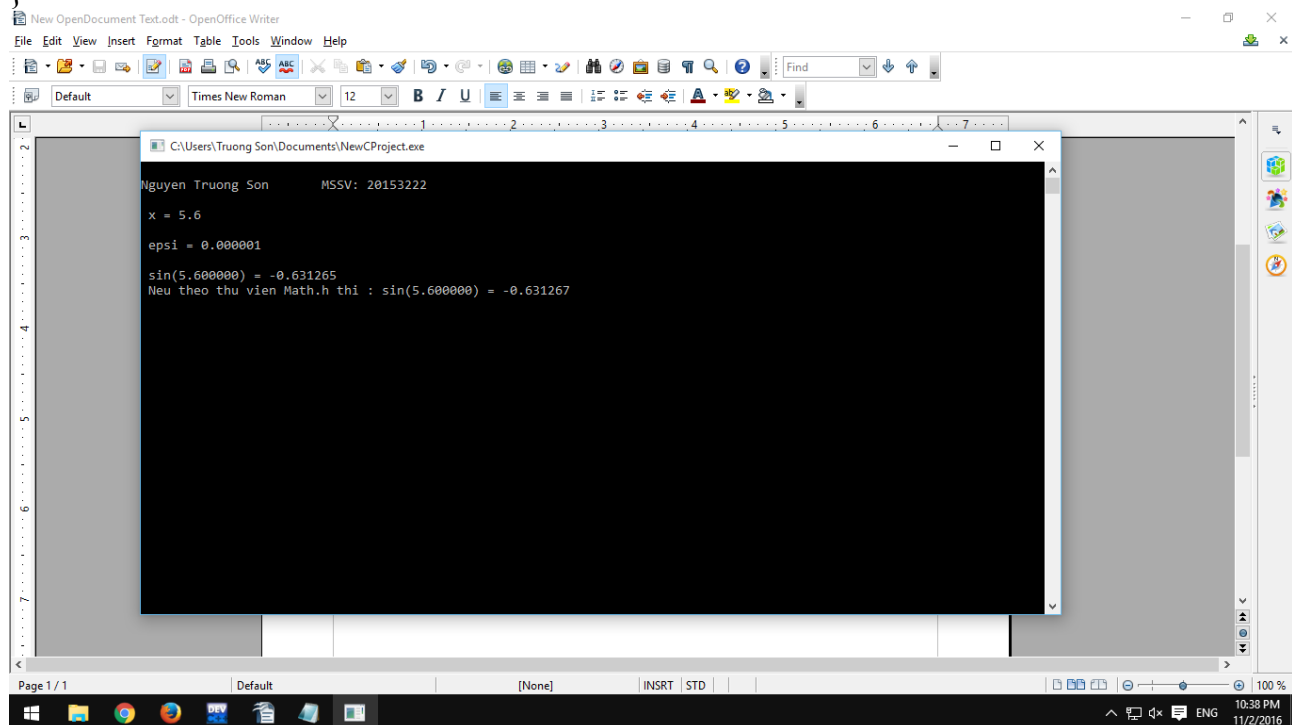


Bài 3.11:

```
#include <stdio.h>
#include <math.h>
#include <conio.h>
void main()
{
    float x, epsi, S=0, a=0;

    printf("\nNguyen Truong Son    MSSV: 20153222\n");
    printf("\n x = ");
    scanf("%f", &x);
    printf("\n epsi = ");
    scanf("%f", &epsi);

    a=x;
    S = x;
    int i = 2;
    while(fabs(a) > epsi) {
        a *= -x * x / (i * (i + 1));
        i += 2;
        S += a;
    }
    printf("\n sin(%f) = %f", x, S);
    printf("\n Neu theo thu vien Math.h thi : sin(%f) = %f", x, sin(x));
    getch();
}
```



Bài 3.12:

```
#include <stdio.h>
#include <conio.h>
```

```

void main() {
    printf("\nNguyen Truong Son    MSSV: 20153222\n");
    int n;
    printf("\n Nhap n: ");
    scanf("%d", &n);
    if(n == 1 || n == 2)
        printf("\n F%d = 1", n);
    else
    {
        int a = 1, b = 1, i = 3, m;
        while(i <= n)
        {
            m = b;
            b += a;
            a = m;
            i++;
        }
        printf("\n F%d = %d", n, b);
    }
}

```

The screenshot shows a C++ IDE window titled 'NewCProject - [NewCProject.dev] - [Executing] - Dev-C++ 5.11'. The console window displays the following output:

```

Nguyen Truong Son    MSSV: 20153222
Nhap n: 7
F7 = 13
-----
Process exited after 4.258 seconds with return value 9
Press any key to continue . . .

```

The code editor shows the same code as above, with line numbers 19 to 23 visible. The status bar at the bottom indicates 'Line: 16 Col: 20 Sel: 0 Lines: 23 Length: 450 Insert Done parsing in 0.031 seconds'.

Bài 3.14:

```

#include <stdio.h>
#include <conio.h>
void main()
{
    printf("\nNguyen Truong Son    MSSV: 20153222\n");
    int n;

    printf("\n Hay nhap n: ");

```

```

scanf("%d", &n);
int S = 0, i = 1, t = 1;
do
{
    if(n % i == 0) S += i;
    if(S > n)
    {
        t = 0;
        break;
    }
    i++;
} while(i < n);
if(t)
    printf("\n Dung la so nguyen hoan thien");
else
    printf("\n Khong phai la so nguyen hoan thien");

```

The screenshot shows the Dev-C++ IDE with a C program being executed. The console window displays the following output:

```

Hay nhap n: 6
Dung la so nguyen hoan thien
-----
Process exited after 2.612 seconds with return value 30
Press any key to continue . . .

```

The code editor shows the following code snippet:

```

30
31
32 }

```

The status bar at the bottom indicates the current line is 26, column 9, and the program has been parsed successfully.

Bài 3.15

```

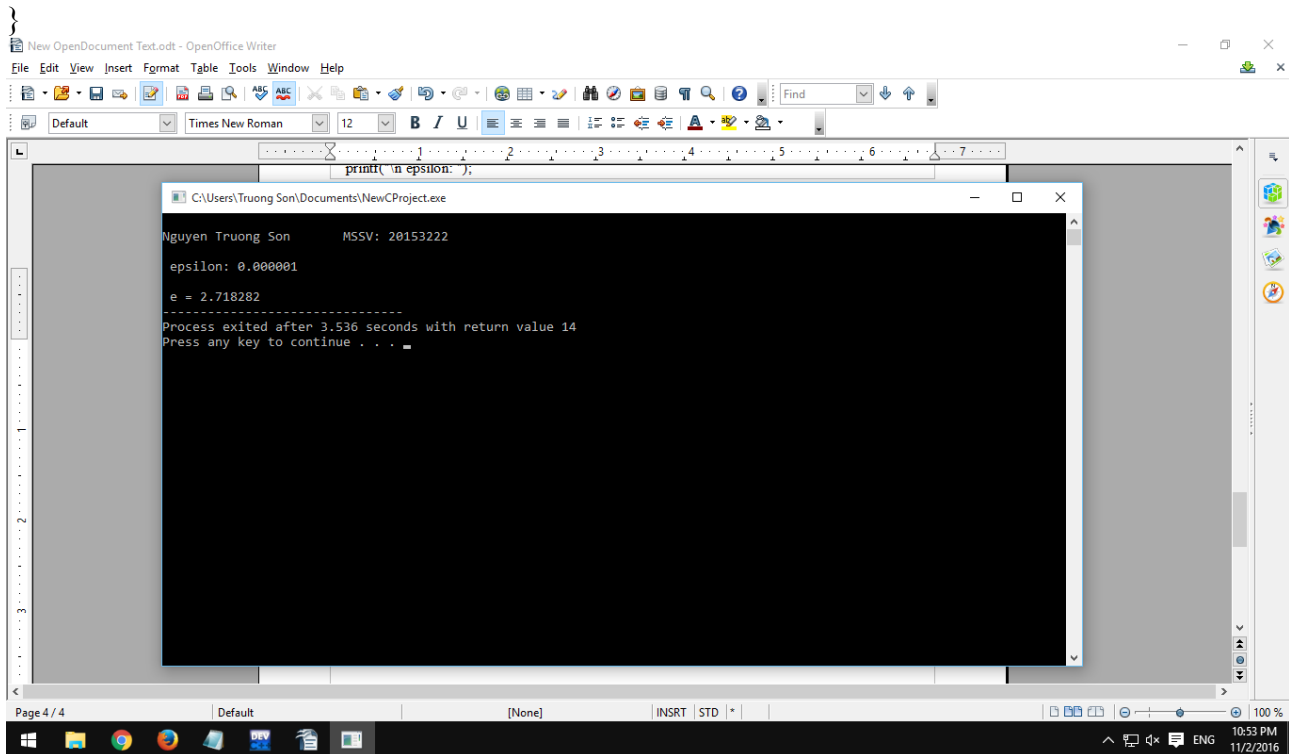
#include <stdio.h>
#include <conio.h>
void main()
{
    printf("\n Nguyen Truong Son    MSSV: 20153222\n");
    float f = 1, epsilon;
    printf("\n epsilon: ");

```

```

scanf("%f", &epsilon);
int i = 1;
float a = 1;
while(a >= epsilon) {
    a *= 1.0 / i;
    f += a;
    i++;
}
printf("\n e = %f", f);

```



Bài 3.17:

```

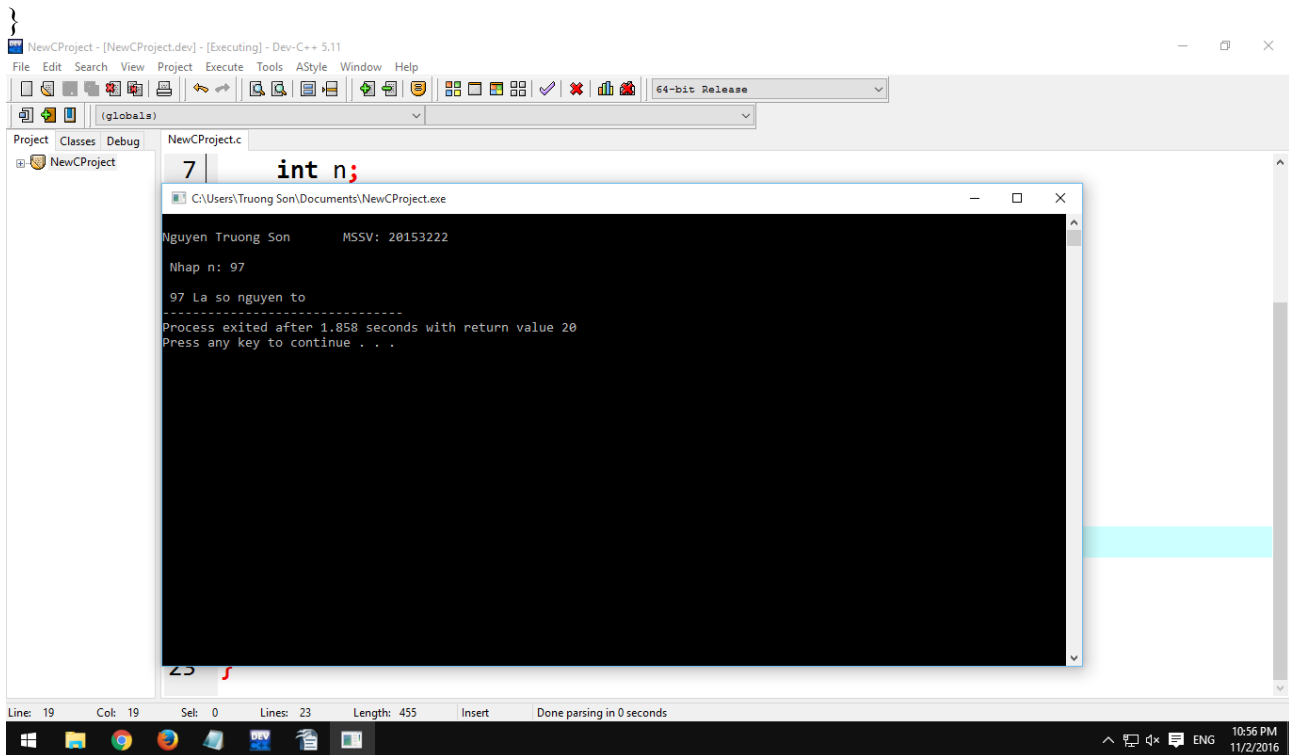
#include <stdio.h>
#include <conio.h>
#include <math.h>
void main()
{
    printf("\nNguyen Truong Son    MSSV: 20153222\n");
    int n;
    printf("\n Nhap n: ");
    scanf("%d", &n);
    int i = 2, t = 1;
    do
    {
        if(n % i == 0)
        {
            t = 0;
            break;
        }
        i++;
    } while(i < sqrt(n));
}

```

```

if(t) printf("\n %d La so nguyen to",n);
else printf("\n %d Khong la so nguyen to",n);

```

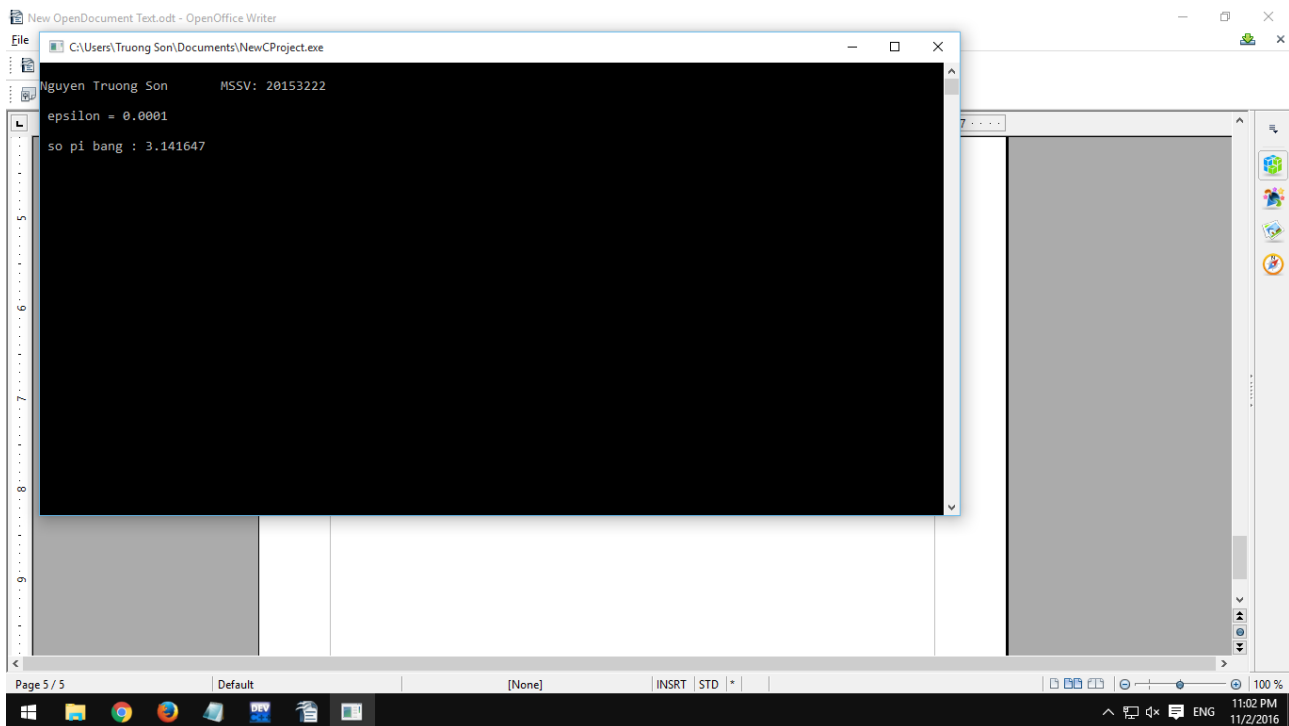


Bài 3.18:

```

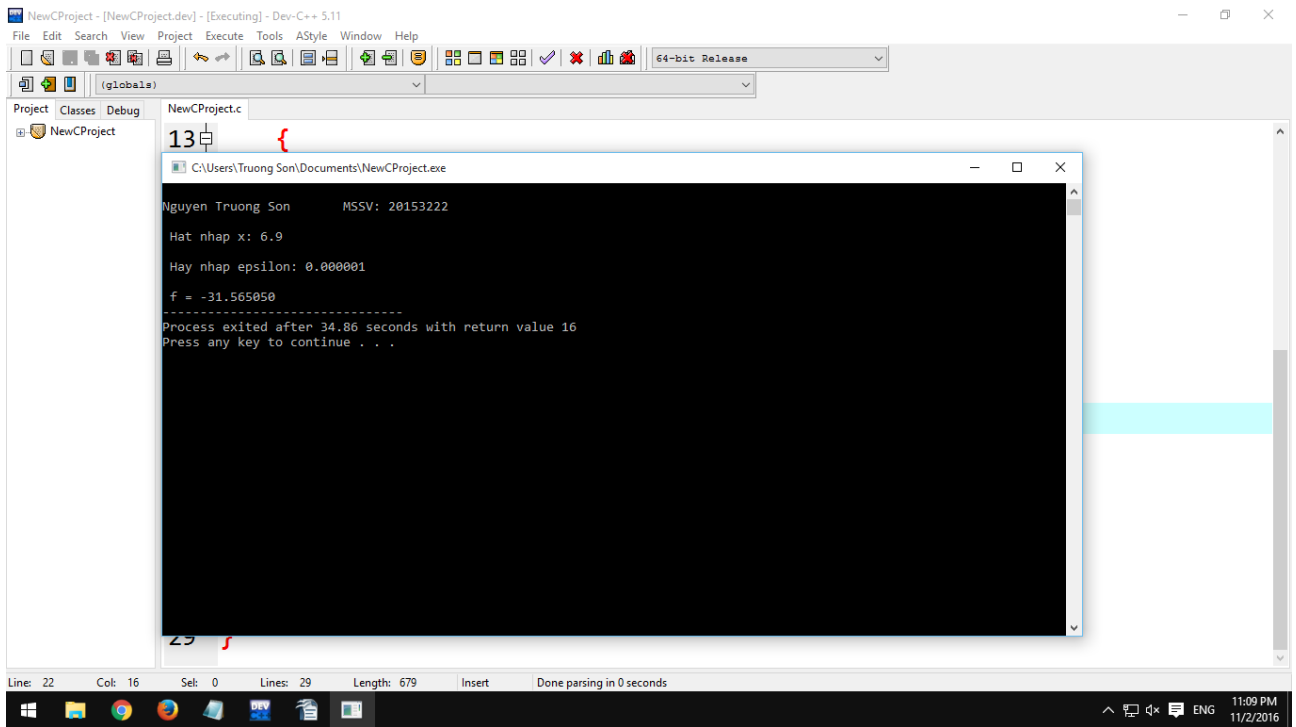
#include <stdio.h>
#include <conio.h>
void main()
{
    printf("\nNguyen Truong Son      MSSV: 20153222\n");
    float  epsilon = 0 , a = 1, d = 1, pi = 4, i = 1;
    printf("\n epsilon = ");
    scanf("%f", &epsilon);
    while(a > epsilon) {
        d = -d;
        i += 2;
        a = 4.0 / i;
        pi += d * a;
    }
    printf("\n so pi bang : %f", pi);
    getch();
}

```



Bài 3.19

```
#include <stdio.h>
#include <conio.h>
void main() {
    printf("\nNguyen Truong Son    MSSV: 20153222\n");
    float x, epsilon;
    printf("\n Hat nhap x: ");
    scanf("%f", &x);
    printf("\n Hay nhap epsilon: ");
    scanf("%f", &epsilon);
    if(3 * x <= epsilon)
        printf("\n f = %f", 1 - 3*x);
    else
    {
        float a = x;
        int i = 5, j = 4, d = 1;
        a = x*x*x/(j*(j-1)*(j-2));
        float f = 1 - 3*x;
        while(i * a > epsilon)
        {
            f += d*i*a;
            i += 2;
            j += 3;
            d = -d;
            a *= (x*x*x) / (j*(j-1)*(j-2));
        }
        printf("\n f = %f", f);
    }
}
```



Bài 3.20:

```

#include <stdio.h>
#include <conio.h>
#include <math.h>
void main()
{
    printf("\nNguyen Truong Son    MSSV: 20153222\n");
    int a, b, c;
    printf("\n Cac so a,b,c thoa man la:\n");
    for(a = 1; a <= 100; a++)
    {
        for(b = a; b <= 100; b++)
        {
            c = (int) sqrt(a*a + b*b);
            if(c > 100)
                break;
            if(c*c == a*a + b*b)
                printf("\n (%d, %d, %d)", a, b, c);
        }
    }
}

```

