```cpp
#include <iostream>
class test{
private:
    int x, y;
public:
    void equlity (){
        std::cout<<"Введите значение x и y\n";
        std::cin>>x;
        std::cin>>y;
    }
    void show(){
        std::cout<<"x= "<<x<<std::endl;
        std::cout<<"y= "<<y<<std::endl;
}
    void summ(){
        int sum = x + y;
        std::cout<<"x+y= "<<sum<<std::endl;
    }
    void bigger(){
        if(x>y){
            std::cout<<"x is the biggest and equals - "<<x<<std::endl;
        }
        else
            std::cout<<"y is the biggest and equals - "<<y<<std::endl;
    }
};
int main() {
    test t;
    t.equlity();
    t.show();
    t.equlity();
    t.show();
    t.summ();
    t.bigger();
    return 0;
}
```

Line: 1 Col: 1 | 0 changes | Uncommitted Changes | Last Commit

```
Введите значение x и y
1
2
x= 1
y= 2
Введите значение x и y
5
6
x= 5
y= 6
x+y= 11
y is the biggest and equals - 6
Program ended with exit code: 0
```

Auto | Filter | All Output | Filter

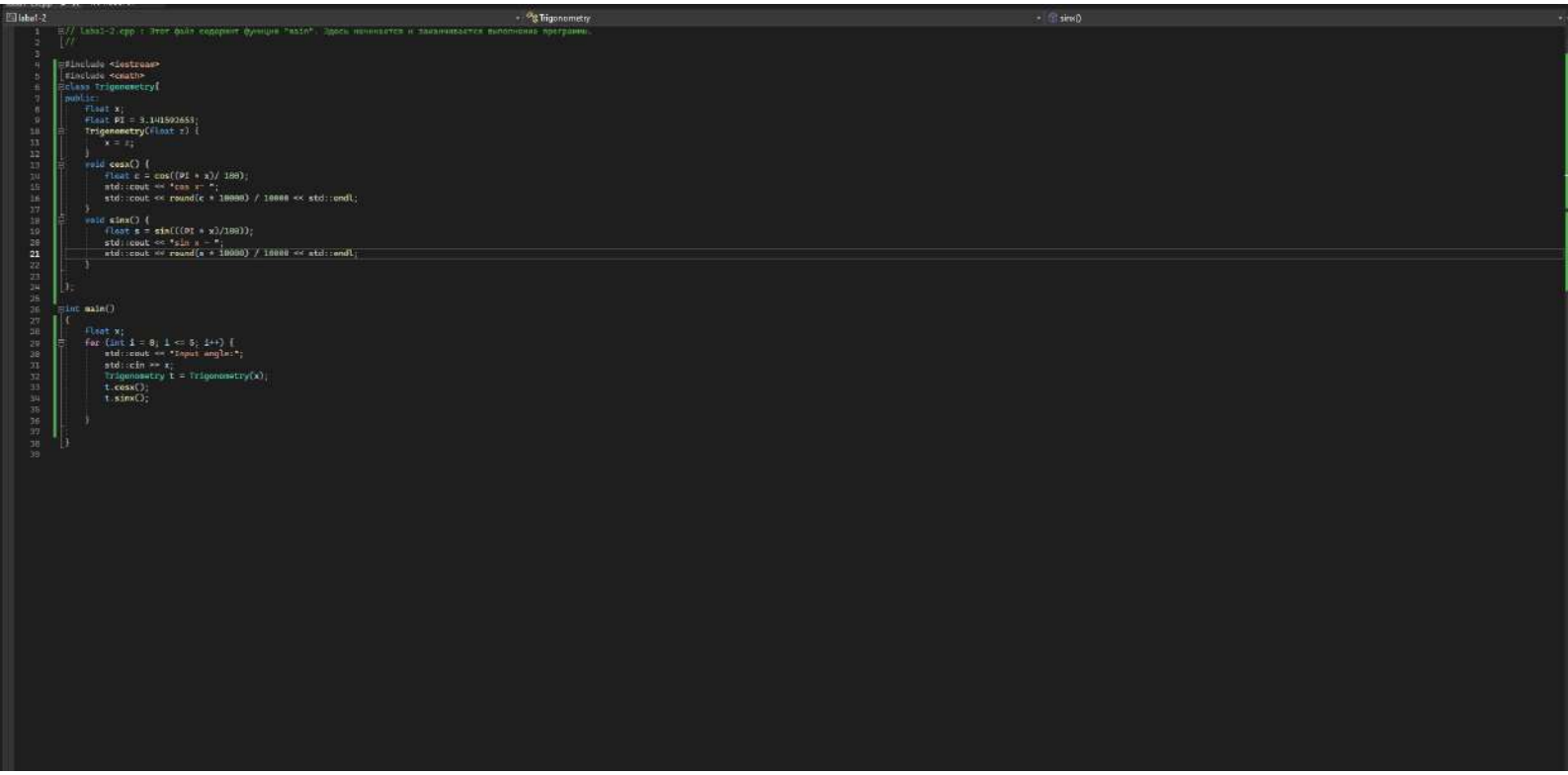
```cpp
// labal-2.cpp : Этот файл содержит функцию "main". Здесь начинается и заканчивается выполнение программы.
//

#include <iostream>
#include <cmath>
class krug { //круг
public:
    int r =5, x_center = 0, y_center = 0;
    double PI = 3.14159265358979323846264338327795;
    float perimetr = 2 * PI * r;
    float squar = PI * r * r;
    void change(int z1, int x, int y) {
        x_center = x;
        y_center = y;
        r = z1;
        perimetr = 2 * PI * r;
        squar = PI * r * r;
    }
    void Show() {
        std::cout << "\nkrug" << std::endl;
        std::cout << "r = " << r << std::endl;
        std::cout << "x center = " << x_center << std::endl;
        std::cout << "y center = " << y_center << std::endl;
        std::cout << "perimetr = " << perimetr << std::endl;
        std::cout << "square  = " << squar << std::endl;
    }
    int check(int x1, int y1) {
        if (x1 * x1 + y1 * y1 <= r) {
            return 0;
        }
        else
            return 1;
    }
    void points(int z) {
        float x = x_center, y;
        std::cout << "points of round) -";
        std::cout << "\n";
        for (int i = 0; i <= z; i++) {
            y = sqrt(r * r - x * x);
            std::cout << "x = " << x;
            std::cout << ",";
            std::cout << "y = " << y;
            std::cout << "\n";
            x -= 0.1;
        }

    }
};



class square {
public:
    int h = 10, x_center = 0, y_center = 0;
    double PI = 3.14159265358979323846264338327795;
    float squar = 0.5 * h * h, perimetr = 4 * (h/sin(45*PI/180));
    void Show() {
        std::cout << "\nromb" << std::endl;
        std::cout << "diagonal = " << h << std::endl;
        std::cout << "x center = " << x_center << std::endl;
        std::cout << "y center = " << y_center << std::endl;
        std::cout << "perimetr = " << perimetr << std::endl;
        std::cout << "square  = " << squar<< std::endl;
    }
    int check(int x1, int y1) {
        if (abs(x1) + abs(y1) <= h) {
```

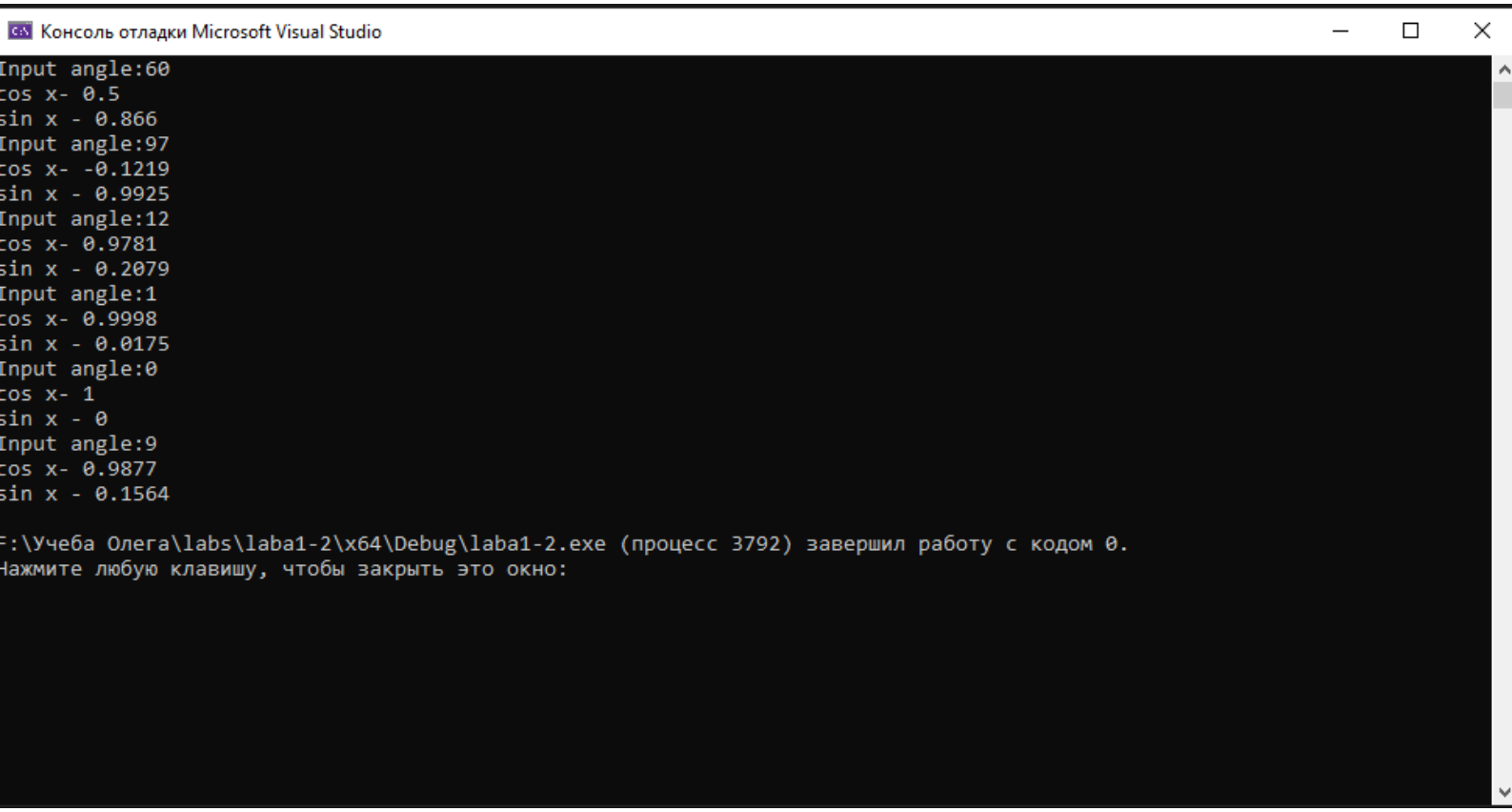
```
    void change(int r1, int x, int y) {
        h = r1;
        x_center = x;
        y_center = y;
        squar = 0.5 * h * h;
        perimetr = 4 * (h / sin(45 * PI / 180));

    }
    void points(int z) {
        float x =x_center, y;
        std::cout << "points of romb)) -*;
        std::cout << "\n";
        for (int i = 0; i <= z; i++) {
            y = h/2 - abs(x);
            std::cout << "y = " << x;
            std::cout << " ";
            std::cout << "y = " << y;
            std::cout << "\n";
            x += 0.1;
            }

        }
};
class square1 {
public:
    float x1 = -2.5, x2 = 3.5, y1 = -2.5, y2 = -2.5, l = 5, squar = l * l, perimetr = 4 * l;
    void Show() {
        std::cout << "\nkvadrat1" << std::endl;
        std::cout << " l = " << l << std::endl;
        std::cout << "x1=" << x1;
        std::cout << " ";
        std::cout << "y1=" << y1;
        std::cout << "\n";
        std::cout << "x1=" << x1;
        std::cout << " ";
        std::cout << "y2=" << y2;
        std::cout << "\n";
        std::cout << "x2= " << x2;
        std::cout << ",";
        std::cout << "y2=" << y2;
        std::cout << "\n";
        std::cout << "x2=" << x2;
        std::cout << ",";
        std::cout << "y1=" << y1;
        std::cout << "\n";
        std::cout << "perimetr = " << perimetr << std::endl;
        std::cout << "square  = " << squar << std::endl;
    }
    int check(int x1, int y1) {
        if ((-l / 2 <= x1 && x1 >= l / 2) || (-l / 2 <= y1 && y1 >= l / 2)) {
            return 0;
        }
        else
            return 1;
    }
    void change(int l1, int x1_new, int x2_new, int y1_new, int y2_new) {
        if ((x1_new - x2_new > abs(l1)) && (y1_new - y2_new > abs(l1))) {
            std::cout << "mistake escape!";
        }
        else {
            l = l1;
            x1 = x1_new;
            x2 = x2_new;
            y1 = y1_new;
            y2 = y2_new;
            squar = l * l;
            perimetr = 4 * l;
```

```
            perimetr = 4 * l;
        }
    }
    void points(int i) {
        float x = x1;
        std::cout << "storona kvadrata\n";
        for (int z = 0; z <= i; z++) {
            std::cout << "x - " << x + 0.1;
            std::cout << ",";
            std::cout << "y - " << y1;
            std::cout << "\n";
            x += 0.1;
        }

    }
};




int main()
{
    krug r;
    square s;
    square& s1;
    r.Show();
    printf_s("%d",r.check(154, 154));
    printf_s("\n%d", r.check(0, 0));
    s.Show();
    printf_s("\n");
    printf_s("%d", s.check(154, 154));
    printf_s("\n%d", s.check(5, 0));
    s1.Show();
    printf_s("\n");
    printf_s("%d", s.check(154, 154));
    printf_s("\n%d", s.check(2.5, 0));
    printf_s("\n");
    printf_s("\n");
    r.change(6,6,6);
    s.change(6,6,6);
    s1.change(7,8,16,4,11);
    r.Show();
    printf_s("\n");
    s.Show();
    printf_s("\n");
    s1.Show();
    printf_s("\n");
    s1.points(5);
    s.points(5);
    r.points(5);
}
```

Консоль отладки Microsoft Visual Studio

```
krug
r = 5
x center = 0
y center = 0
perimetr = 31.4159
square  = 78.5398
1
0
romb
diagonal - 10
x center = 0
y center = 0
perimetr = 56.5685
square  = 50

1
0
kvadrat1
 l = 5
x1=-2.5,y1=-2.5
x1=-2.5,y2=-2.5
x2= 2.5,y2=-2.5
x2=2.5,y1=-2.5
perimetr = 20
square  = 25

1
0


krug
r = 6
x center = 6
y center = 6
perimetr = 37.6991
square  = 113.097


romb
diagonal - 6
x center = 6
y center = 6
perimetr = 33.9411
square  = 18


kvadrat1
 l = 7
x1=8,y1=4
x1=8,y2=11
x2= 15,y2=11
x2=15,y1=4
perimetr = 28
square  = 49

storona kvadrata
x - 8.1,y - 4
x - 8.2,y - 4
x - 8.3,y - 4
x - 8.4,y - 4
x - 8.5,y - 4
x - 8.6,y - 4
points of romb)) -
x = 6,y = -3
x = 6.1,y = -3.1
x = 6.2,y = -3.2
x = 6.3,y = -3.3
x = 6.4,y = -3.4
x = 6.5,y = -3.5
points of round)) -
x = 6,y = 0
x = 5.9,y = 1.09087
x = 5.8,y = 1.53623
x = 5.7,y = 1.8735
x = 5.6,y = 2.15406
x = 5.5,y = 2.39791

F:\Учеба Олега\labs\laba1-2\x64\Debug\laba1-2.exe (процесс 17412) завершил работу с кодом 0.
Нажмите любую клавишу, чтобы закрыть это окно:
```


label-2
Trigonometry
sinx()
// label-2.cpp : Этот файл содержит функцию "main". Здесь начинается и заканчивается выполнение программы.
//
#include <iostream>
#include <cmath>
class Trigonometry{
public:
float x;
float PI = 3.141592653;
Trigonometry(float r) {
x = r;
}
void cosx() {
float c = cos((PI * x)/ 180);
std::cout << "cos x= ";
std::cout << round(c * 10000) / 10000 << std::endl;
}
void sinx() {
float s = sin(((PI * x)/180));
std::cout << "sin x = ";
std::cout << round(s * 10000) / 10000 << std::endl;
}
};
int main()
{
float x;
for (int i = 0; i <= 5; i++) {
std::cout << "Input angle:";
std::cin >> x;
Trigonometry t = Trigonometry(x);
t.cosx();
t.sinx();
}
}


Консоль отладки Microsoft Visual Studio
Input angle:60
cos x- 0.5
sin x - 0.866
Input angle:97
cos x- -0.1219
sin x - 0.9925
Input angle:12
cos x- 0.9781
sin x - 0.2079
Input angle:1
cos x- 0.9998
sin x - 0.0175
Input angle:0
cos x- 1
sin x - 0
Input angle:9
cos x- 0.9877
sin x - 0.1564
F:\Учеба Олега\labs\laba1-2\x64\Debug\laba1-2.exe (процесс 3792) завершил работу с кодом 0.
Нажмите любую клавишу, чтобы закрыть это окно: