

O‘ZBEKISTON RESPUBLIKASI QURILISH VAZIRLIGI
TOSHKENT ARXITEKTURA – QURILISH INSTITUTI
QURILISHNI BOSHQARISH FAKULTETI
“AXBOROT TEXNOLOGIYALARI” KAFEDRASI

«QURILISHDA AXBOROT TEXNOLOGIYALARI»
fanidan

2-HISOB GRAFIK ISHI

MAVZU: C++ dasturlash tilida masalalarni dasturini tuzish

Bajardi: _____.

Guruh: _____

Tekshirdi: _____

Reja

Nazariy qism

1 masala(izoh: masala sharti yoziladi)

2 masala(masala sharti yoziladi)

3 masala(masala sharti yoziladi)

Xulosa

1. Butun sonlarga oid masalalar

16.	$a = (1 + x^2) \cdot x + \frac{e^x}{2x^2 + 5} - \frac{x}{y \cdot \cos x^3}$
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Dastur kodi

```
#include <iostream>
#include <math.h>
using namespace std;
int main()
{
    float a,x,y;

    cout<<"x ni kiriting x=";
    cin>>x;

    cout<<"y ni kiriting y=";
    cin>>y;

    a=(1+x*x)*x+exp(x)/(2*pow(x,2)+5)-x/(y*cos(pow(x,3)));

    cout<<"Result a="<<a;

    return 0;
}
```

Dastur Natijasi:

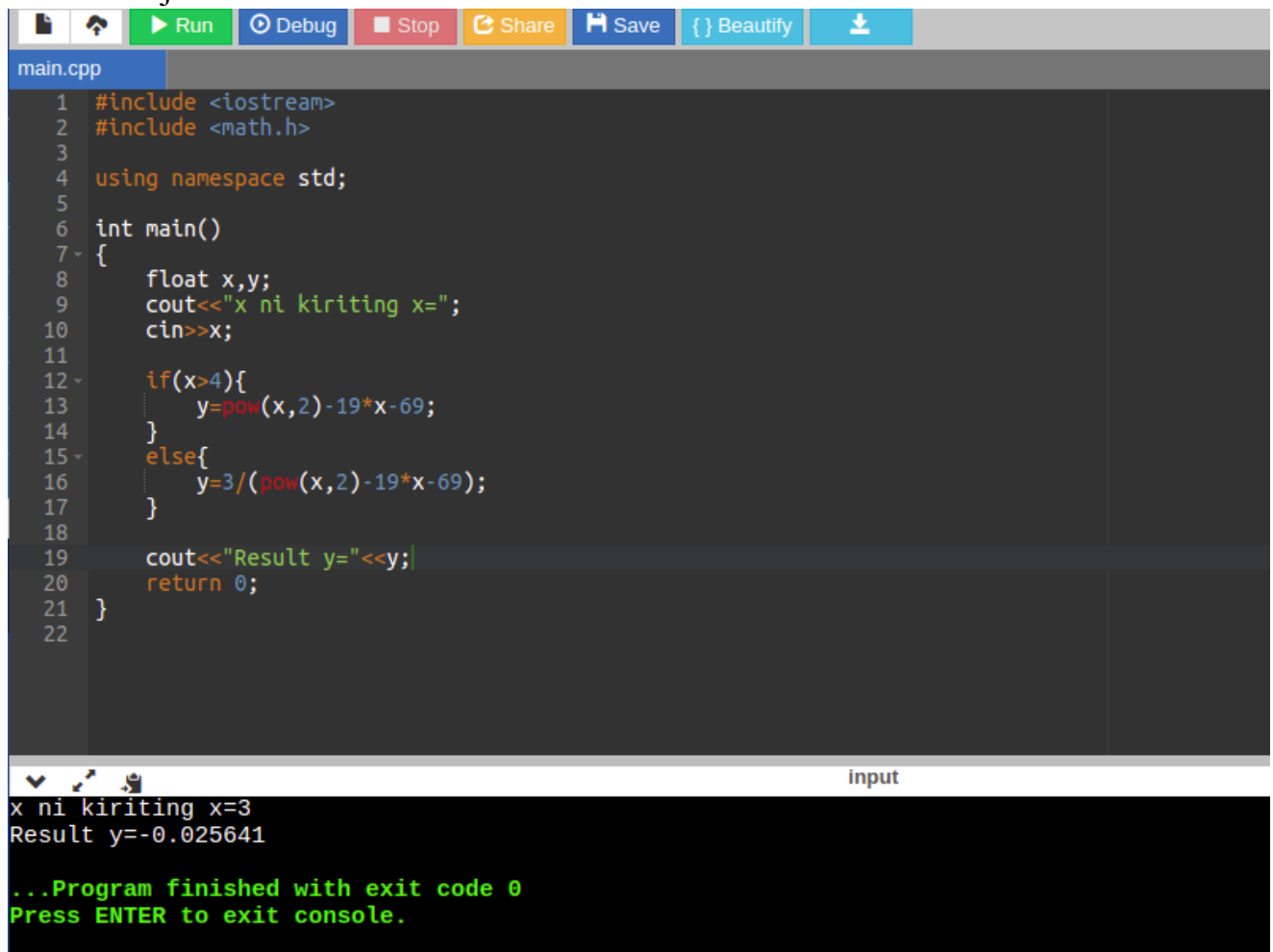
$$16) y = \begin{cases} x^2 - 19x - 69, x > 4 \\ 3/(x^2 - 19x - 69), x \leq 4 \end{cases};$$

Dastur kodi

```
#include <iostream>
#include <math.h>
using namespace std;
int main()
{
    float x,y;
    cout<<"x ni kiriting x=";
    cin>>x;

    if (x>4) {
        y=pow(x,2)-19*x-69;
    }
    else{
        y=3/(pow(x,2)-19*x-69);
    }
    cout<<"Result y="<<y;
    return 0;
}
```

Dastur natijasi:



The image shows a C++ IDE interface. At the top, there is a toolbar with buttons for Run, Debug, Stop, Share, Save, Beautify, and a download icon. Below the toolbar, the file name 'main.cpp' is displayed. The main editor area contains the following C++ code:

```
1 #include <iostream>
2 #include <math.h>
3
4 using namespace std;
5
6 int main()
7 {
8     float x,y;
9     cout<<"x ni kiriting x=";
10    cin>>x;
11
12    if(x>4){
13        y=pow(x,2)-19*x-69;
14    }
15    else{
16        y=3/(pow(x,2)-19*x-69);
17    }
18
19    cout<<"Result y="<<y;
20    return 0;
21 }
22
```

Below the code editor, there is a console window labeled 'input'. It shows the program's execution output:

```
x ni kiriting x=3
Result y=-0.025641

...Program finished with exit code 0
Press ENTER to exit console.
```

3.Sikl operatoriga oid masalalar

16	a)	$y = \ln^3 \sqrt{x^2 + 4x + 2}$	$X \in [0,1]; \Delta x = 0,1$
	b)	$\prod_{n=1}^{15} \frac{13}{n^3 + 5n + 7}$	

Dastur kodi

```
#include <iostream>
#include <math.h>
using namespace std;

int main()
{
    float y=0,P=1;
    for (float x = 0; x <=1 ; x+=0.1) {
        y=y+pow(log(pow(x,2)+4*x+2),3);
    }
    for (int n = 1; n <=15 ; n++) {
        P=P*13/(pow(n,3)+5*n+7);
    }
    cout<<"Result 1 y="<<y<<endl;
    cout<<"Result 2 P="<<P<<endl;
    return 0;
}
```

Dastur Natijasi



The image shows a C++ IDE window with a toolbar at the top containing icons for file operations, a 'Run' button, 'Debug', 'Stop', 'Share', 'Save', 'Beautify', and a download icon. The main editor area displays the code for 'main.cpp' with line numbers 1 through 22. The code includes `<iostream>` and `<math.h>`, uses the `std` namespace, and defines a `main` function. Inside `main`, it declares `float y, P;`, initializes `y=0;` and `P=1;`, then performs two loops: a `for` loop for `x` from 0 to 1 with a step of 0.1, and an inner `for` loop for `n` from 1 to 15. The inner loop calculates `P` using the formula $P = 13 / (n^3 + 5n + 7)$. After the loops, it prints 'Result 1 y=' and 'Result 2 P=' followed by their respective values. The output window at the bottom shows the results: 'Result 1 y=29.5215' and 'Result 2 P=9.04603e-23', followed by a green message indicating the program finished with exit code 0 and a prompt to press ENTER to exit the console.

```
1 #include <iostream>
2 #include <math.h>
3
4 using namespace std;
5
6 int main()
7 {
8     float y,P;
9     y=0;
10    P=1;
11    for (float x = 0; x <=1 ; x+=0.1) {
12        y+=pow(log(pow(x,2)+4*x+2),3);
13    }
14    for (int n = 1; n <=15 ; n++) {
15        P*=13/(pow(n,3)+5*n+7);
16    }
17    cout<<"Result 1 y="<<y<<endl;
18    cout<<"Result 2 P="<<P<<endl;
19
20    return 0;
21 }
22
```

input

Result 1 y=29.5215
Result 2 P=9.04603e-23

...Program finished with exit code 0
Press ENTER to exit console.

