

**O‘ZBEKISTON RESPUBLIKASI AXBOROT TEXNOLOGIYALARI VA  
KOMMUNIKATSIYALARINI RIVOJLANTIRISH VAZIRLIGI**

**MUHAMMAD AL-XORAZMIY NOMIDAGI TOSHKENT AXBOROT  
TEXNOLOGIYALARI UNIVERSITETI**



Informatika asoslari kafedrası  
Dasturlash Fani

# 1 - AMALIY ISH

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Toshkent 2023

1-topshiriq

12.04.2003

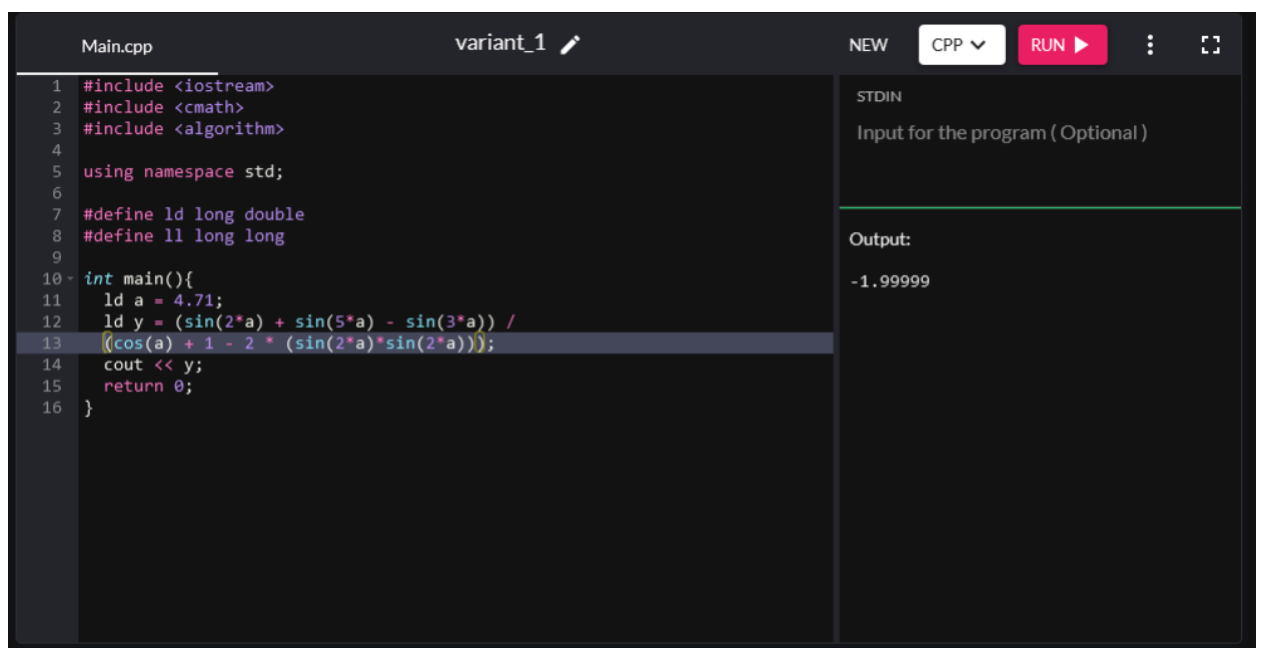
18.	$Y = \frac{\sin 2\alpha + \sin 5\alpha - \sin 3\alpha}{\cos \alpha + 1 - 2\sin^2 2\alpha}$	$\alpha = 4.71$
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```
#include <iostream>
#include <cmath>
#include <algorithm>
```

```
using namespace std;
```

```
#define ld long double
#define ll long long
```

```
int main(){
    ld a = 4.71;
    ld y = (sin(2*a) + sin(5*a) - sin(3*a)) / (cos(a) + 1 - 2 * (sin(2*a)*sin(2*a)));
    cout << y;
    return 0;
}
```



The screenshot shows a C++ IDE with a file named 'Main.cpp' and a variant labeled 'variant\_1'. The code is as follows:

```
1 #include <iostream>
2 #include <cmath>
3 #include <algorithm>
4
5 using namespace std;
6
7 #define ld long double
8 #define ll long long
9
10 int main(){
11     ld a = 4.71;
12     ld y = (sin(2*a) + sin(5*a) - sin(3*a)) /
13     ((cos(a) + 1 - 2 * (sin(2*a)*sin(2*a))));
14     cout << y;
15     return 0;
16 }
```

The IDE interface includes a 'NEW' button, a language dropdown set to 'CPP', and a 'RUN' button. On the right side, there is a 'STDIN' section for optional input and an 'Output' section showing the result: '-1.99999'.

2-topshiriq

12.04.2003

18	$c = 2^{y^x} + (3^x)^y - \frac{y(\arctg(z - \frac{\pi}{6}))}{ x  + \frac{1}{y^2 + 1}}$	$\begin{aligned} x &= 5.243, \\ y &= 0.235, \\ z &= 0.345 \cdot 10^{-4} \\ c &= 3.201 \end{aligned}$
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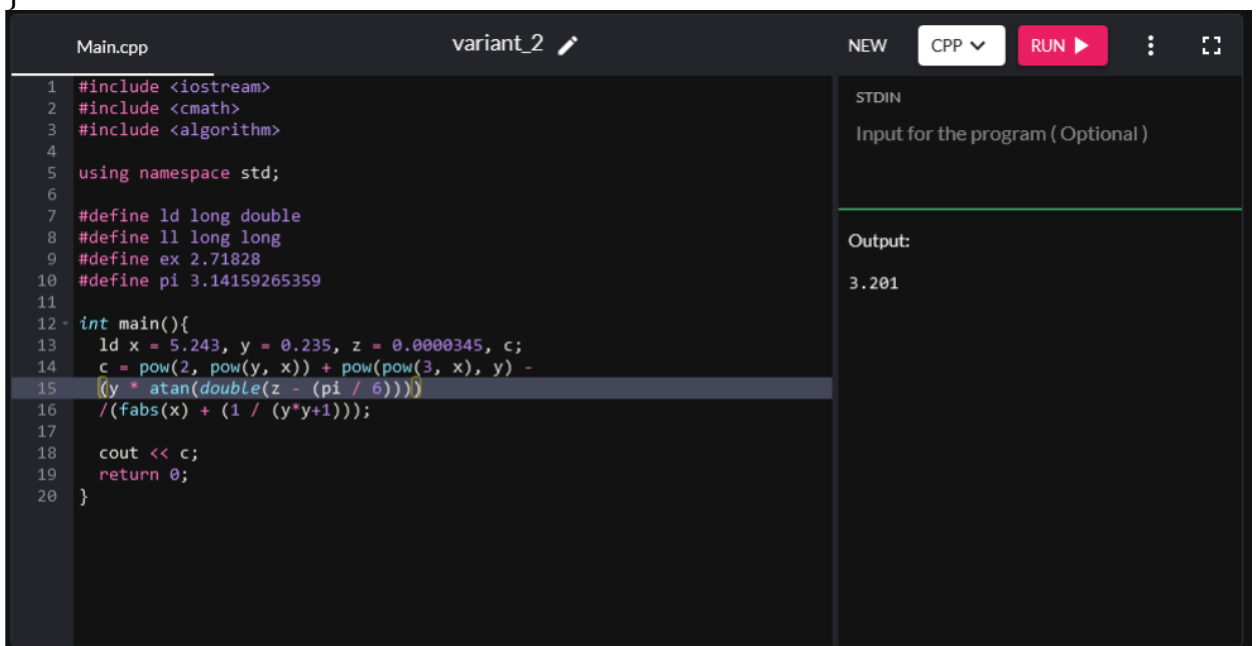
```
#include <iostream>
#include <cmath>
#include <algorithm>
```

```
using namespace std;
```

```
#define ld long double
#define ll long long
#define ex 2.71828
#define pi 3.14159265359
```

```
int main(){
    ld x = 5.243, y = 0.235, z = 0.0000345, c;
    c = pow(2, pow(y, x)) + pow(pow(3, x), y) - (y * atan(double(z - (pi / 6))))
    /(fabs(x) + (1 / (y*y+1)));

    cout << c;
    return 0;
}
```



The screenshot shows a C++ IDE with a file named 'Main.cpp'. The code is identical to the one provided in the previous blocks. The IDE has a dark theme. On the right side, there are tabs for 'NEW', 'CPP', and a 'RUN' button. Below these, there is a section for 'STDIN' with the text 'Input for the program (Optional)'. The 'Output' section shows the result '3.201'.