1-Jadval. 11-misol

11	$A = \left(xctg\dfrac{y}{x^2+y^2}+\dfrac{y}{2}\ln(x^2+y^2)\right)^3$ $B = \dfrac{Sin^2(x^2+y^2)+A+7,6}{3,2\cdot10^{-4}+2x^2+\sqrt{x^2+y^2}}$	$x = 1,32$ $y = -4,6$

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

int main() {
double x,y,A,B;
cout<<"x=";
cin>>x;
cout<<"y=";
cin>>y;

double cot_argument =
y/(pow(x,2)+pow(y,2));
double cot_step =
cos(cot_argument)/sin(cot_argument);
double ln_step = log(pow(x,2) +
pow(y,2));
double degree_argument = x*cot_step +
y/2*ln_step;
A = pow(degree_argument,3);

double sin_step = pow(sin(pow(x,2) +
pow(y,2)),2);
double sqrt_step =
sqrt(pow(x,2)+pow(y,2));
double pace_step = sin_step + A + 7.6;
double den_step = 3.2/10000 +
2*pow(x,2) + sqrt_step;
B = pace_step/den_step;

cout<<"A="<<A<<endl<<"B="<<B;
return 0;
}
```
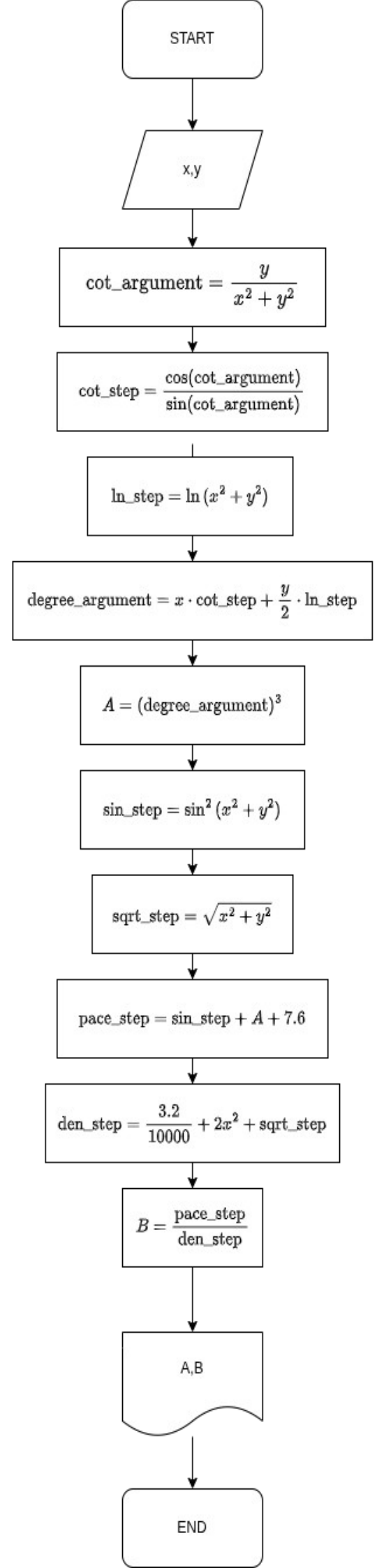
START

x,y

$$cot\_argument = \frac{y}{x^2 + y^2}$$

$$cot\_step = \frac{\cos(cot\_argument)}{\sin(cot\_argument)}$$

$$ln\_step = \ln(x^2 + y^2)$$

$$degree\_argument = x \cdot cot\_step + \frac{y}{2} \cdot ln\_step$$

$$A = (degree\_argument)^3$$

$$sin\_step = \sin^2(x^2 + y^2)$$

$$sqrt\_step = \sqrt{x^2 + y^2}$$

$$pace\_step = sin\_step + A + 7.6$$

$$den\_step = \frac{3.2}{10000} + 2x^2 + sqrt\_step$$

$$B = \frac{pace\_step}{den\_step}$$

A,B

END

2-Jadval. 11-misol

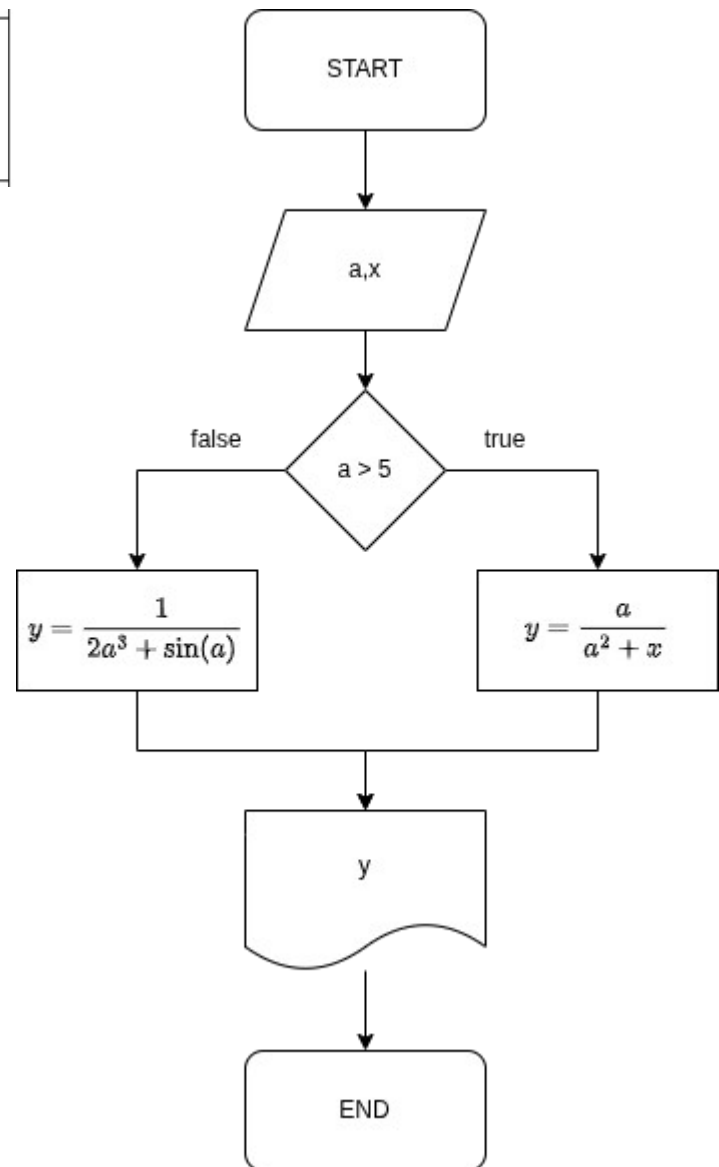| 11.	$y = \begin{cases} \dfrac{a}{a^2 + x}, & \text{arap} \quad a > 5 \\ \dfrac{1}{2a^3 + \sin a}, & \text{arap} \quad a \le 5 \end{cases}$

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

int main() {
double a,y,x;
cout<<"a=";
cin>>a;
cout<<"x=";
cin>>x;
if(a > 5){
y = a/(pow(a,2)+x);
} else{
y = 1/(2*pow(a,3)+sin(a));
}

cout<<y;

return 0;
}
```

Github

START

a,x

false   a > 5   true

$$y = \frac{1}{2a^3 + \sin(a)}$$

$$y = \frac{a}{a^2 + x}$$

y

END

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3-Jadval. 11-misol

11	$y = 2a\sin^5 x^2 + \cos^2 x^3 - bx$	$x = \begin{cases} z^3 + 0{,}2; & z < 1; \\ z + \ln z; & z \geq 1. \end{cases}$

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

int main() {
double a,b,y,x,z;
cout<<"a=";
cin>>a;
cout<<"b=";
cin>>b;
cout<<"z=";
cin>>z;

if(z<1){
x=pow(z,3)+0.2;
}else{
x=z+log(z);
}

double
first_step=2*a*pow(sin(pow(x,2)),5);
double
second_step=pow(cos(pow(x,3)),2);
y=first_step+second_step-b*x;

cout<<"y="<<y;
return 0;
}
```

Github

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START

a,b,z

false — $z<1$ — true

$x = z + \ln(z)$

$x = z^3 + 0.2$

$\text{first\_step} = 2a \cdot \sin^5 (x^2)$

$\text{second\_step} = \cos^2 (x^3)$

$y = \text{first\_step} + \text{second\_step} - b \cdot x$

y

END