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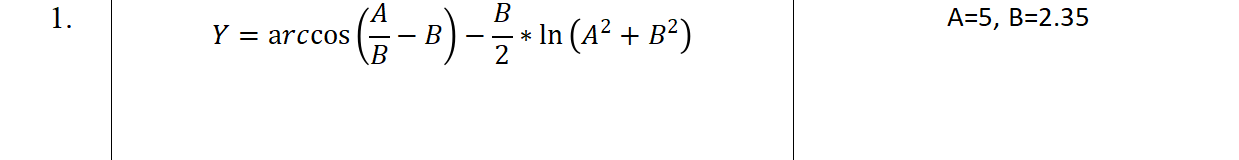
Dasturlash fanidan shaxsiy topshiriq

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Toshkent 2024

**1-Topshiriq**

**Dastur va Natijasi**

#pragma once

namespace myform {

using namespace System;

using namespace System::ComponentModel;

using namespace System::Collections;

using namespace System::Windows::Forms;

using namespace System::Data;

using namespace System::Drawing;

/// <summary>

/// Summary for Form1

/// </summary>

public ref class Form1 : public System::Windows::Forms::Form

{

public:

Form1(void)

{

InitializeComponent();

//

//TODO: Add the constructor code here

//

}

protected:

/// <summary>

/// Clean up any resources being used.

/// </summary>

~Form1()

{

if (components)

{

delete components;

}

}

private: System::ComponentModel::BackgroundWorker^ backgroundWorker1;

protected:

private: System::Windows::Forms::Button^ button1;

private: System::Windows::Forms::PictureBox^ pictureBox1;

private: System::Windows::Forms::Label^ label1;

private: System::Windows::Forms::Label^ a;

private: System::Windows::Forms::Label^ b;

private: System::Windows::Forms::Label^ y;

private: System::Windows::Forms::TextBox^ textBox1;

private: System::Windows::Forms::TextBox^ textBox2;

private: System::Windows::Forms::TextBox^ result\_label;

private: System::Windows::Forms::Button^ result\_click;

private:

/// <summary>

/// Required designer variable.

/// </summary>

System::ComponentModel::Container ^components;

#pragma region Windows Form Designer generated code

/// <summary>

/// Required method for Designer support - do not modify

/// the contents of this method with the code editor.

/// </summary>

void InitializeComponent(void)

{

System::ComponentModel::ComponentResourceManager^ resources = (gcnew System::ComponentModel::ComponentResourceManager(Form1::typeid));

this->backgroundWorker1 = (gcnew System::ComponentModel::BackgroundWorker());

this->button1 = (gcnew System::Windows::Forms::Button());

this->pictureBox1 = (gcnew System::Windows::Forms::PictureBox());

this->label1 = (gcnew System::Windows::Forms::Label());

this->a = (gcnew System::Windows::Forms::Label());

this->b = (gcnew System::Windows::Forms::Label());

this->y = (gcnew System::Windows::Forms::Label());

this->textBox1 = (gcnew System::Windows::Forms::TextBox());

this->textBox2 = (gcnew System::Windows::Forms::TextBox());

this->result\_label = (gcnew System::Windows::Forms::TextBox());

this->result\_click = (gcnew System::Windows::Forms::Button());

(cli::safe\_cast<System::ComponentModel::ISupportInitialize^ >(this->pictureBox1))->BeginInit();

this->SuspendLayout();

//

// button1

//

this->button1->BackColor = System::Drawing::Color::Red;

this->button1->FlatStyle = System::Windows::Forms::FlatStyle::Popup;

this->button1->Font = (gcnew System::Drawing::Font(L"Microsoft Sans Serif", 12, System::Drawing::FontStyle::Bold, System::Drawing::GraphicsUnit::Point,

static\_cast<System::Byte>(0)));

this->button1->ForeColor = System::Drawing::Color::White;

this->button1->Location = System::Drawing::Point(515, 21);

this->button1->Name = L"button1";

this->button1->Size = System::Drawing::Size(34, 35);

this->button1->TabIndex = 0;

this->button1->Text = L"x";

this->button1->UseVisualStyleBackColor = false;

this->button1->Click += gcnew System::EventHandler(this, &Form1::button1\_Click);

//

// pictureBox1

//

this->pictureBox1->Image = (cli::safe\_cast<System::Drawing::Image^ >(resources->GetObject(L"pictureBox1.Image")));

this->pictureBox1->Location = System::Drawing::Point(75, 56);

this->pictureBox1->Name = L"pictureBox1";

this->pictureBox1->Size = System::Drawing::Size(410, 107);

this->pictureBox1->SizeMode = System::Windows::Forms::PictureBoxSizeMode::StretchImage;

this->pictureBox1->TabIndex = 1;

this->pictureBox1->TabStop = false;

//

// label1

//

this->label1->Font = (gcnew System::Drawing::Font(L"Palatino Linotype", 16.2F, System::Drawing::FontStyle::Regular, System::Drawing::GraphicsUnit::Point,

static\_cast<System::Byte>(0)));

this->label1->Location = System::Drawing::Point(68, 166);

this->label1->Name = L"label1";

this->label1->Size = System::Drawing::Size(424, 55);

this->label1->TabIndex = 2;

this->label1->Text = L"Boshlang\'ich qiymatlarni kiriting";

this->label1->TextAlign = System::Drawing::ContentAlignment::MiddleCenter;

//

// a

//

this->a->AutoSize = true;

this->a->Font = (gcnew System::Drawing::Font(L"Palatino Linotype", 13.8F, System::Drawing::FontStyle::Bold, System::Drawing::GraphicsUnit::Point,

static\_cast<System::Byte>(0)));

this->a->Location = System::Drawing::Point(69, 232);

this->a->Name = L"a";

this->a->Size = System::Drawing::Size(40, 32);

this->a->TabIndex = 3;

this->a->Text = L"A:";

this->a->Click += gcnew System::EventHandler(this, &Form1::x\_Click);

//

// b

//

this->b->AutoSize = true;

this->b->Font = (gcnew System::Drawing::Font(L"Palatino Linotype", 13.8F, System::Drawing::FontStyle::Bold, System::Drawing::GraphicsUnit::Point,

static\_cast<System::Byte>(0)));

this->b->Location = System::Drawing::Point(69, 274);

this->b->Name = L"b";

this->b->Size = System::Drawing::Size(37, 32);

this->b->TabIndex = 4;

this->b->Text = L"B:";

//

// y

//

this->y->AutoSize = true;

this->y->Font = (gcnew System::Drawing::Font(L"Palatino Linotype", 13.8F, System::Drawing::FontStyle::Bold, System::Drawing::GraphicsUnit::Point,

static\_cast<System::Byte>(0)));

this->y->Location = System::Drawing::Point(72, 360);

this->y->Name = L"y";

this->y->Size = System::Drawing::Size(55, 32);

this->y->TabIndex = 6;

this->y->Text = L"Y = ";

//

// textBox1

//

this->textBox1->Location = System::Drawing::Point(125, 242);

this->textBox1->Name = L"textBox1";

this->textBox1->Size = System::Drawing::Size(307, 22);

this->textBox1->TabIndex = 7;

this->textBox1->TextChanged += gcnew System::EventHandler(this, &Form1::textBox1\_TextChanged);

//

// textBox2

//

this->textBox2->Location = System::Drawing::Point(125, 282);

this->textBox2->Name = L"textBox2";

this->textBox2->Size = System::Drawing::Size(307, 22);

this->textBox2->TabIndex = 8;

//

// result\_label

//

this->result\_label->Location = System::Drawing::Point(125, 368);

this->result\_label->Name = L"result\_label";

this->result\_label->Size = System::Drawing::Size(307, 22);

this->result\_label->TabIndex = 9;

//

// result\_click

//

this->result\_click->BackColor = System::Drawing::Color::Green;

this->result\_click->FlatStyle = System::Windows::Forms::FlatStyle::Flat;

this->result\_click->ForeColor = System::Drawing::Color::White;

this->result\_click->Location = System::Drawing::Point(209, 322);

this->result\_click->Name = L"result\_click";

this->result\_click->Size = System::Drawing::Size(137, 30);

this->result\_click->TabIndex = 10;

this->result\_click->Text = L"Natijani hisoblash";

this->result\_click->UseVisualStyleBackColor = false;

this->result\_click->Click += gcnew System::EventHandler(this, &Form1::result\_click\_Click);

//

// Form1

//

this->AutoScaleDimensions = System::Drawing::SizeF(8, 16);

this->AutoScaleMode = System::Windows::Forms::AutoScaleMode::Font;

this->BackColor = System::Drawing::SystemColors::ActiveBorder;

this->ClientSize = System::Drawing::Size(570, 479);

this->Controls->Add(this->result\_click);

this->Controls->Add(this->result\_label);

this->Controls->Add(this->textBox2);

this->Controls->Add(this->textBox1);

this->Controls->Add(this->y);

this->Controls->Add(this->b);

this->Controls->Add(this->a);

this->Controls->Add(this->label1);

this->Controls->Add(this->pictureBox1);

this->Controls->Add(this->button1);

this->FormBorderStyle = System::Windows::Forms::FormBorderStyle::None;

this->Name = L"Form1";

this->StartPosition = System::Windows::Forms::FormStartPosition::CenterScreen;

this->Text = L"Form1";

this->Load += gcnew System::EventHandler(this, &Form1::Form1\_Load);

(cli::safe\_cast<System::ComponentModel::ISupportInitialize^ >(this->pictureBox1))->EndInit();

this->ResumeLayout(false);

this->PerformLayout();

}

#pragma endregion

private: System::Void button1\_Click(System::Object^ sender, System::EventArgs^ e) {

this->Close();

}

private: System::Void Form1\_Load(System::Object^ sender, System::EventArgs^ e) {

}

private: System::Void x\_Click(System::Object^ sender, System::EventArgs^ e) {

}

private: System::Void result\_click\_Click(System::Object^ sender, System::EventArgs^ e) {

double a, b, y;

if((this->textBox1->Text !="")&&(this->textBox2->Text !="")){

try{

a = Convert::ToDouble(this->textBox1->Text);

b = Convert::ToDouble(this->textBox2->Text);

y = Math::Acos(a/b - b) - b\*(Math::Log(Math::Pow(a,2) + Math::Pow(b,2)))/2;

this->result\_label->Text = Convert::ToString(y);

}

catch (FormatException^ ex) {

MessageBox::Show("Matnni raqamga o'girishda xato! Raqam kiriting.", "Xatolik", MessageBoxButtons::OK, MessageBoxIcon::Error);

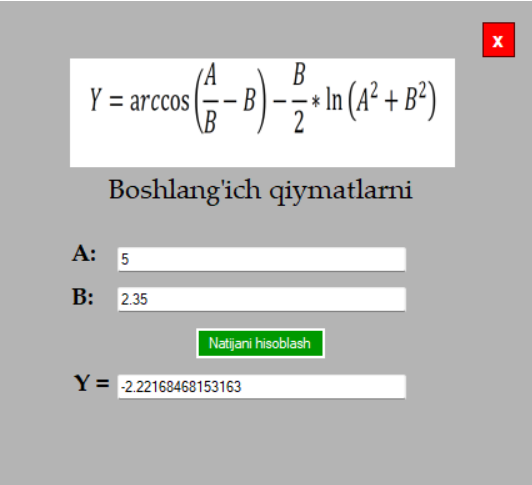
}

}

}

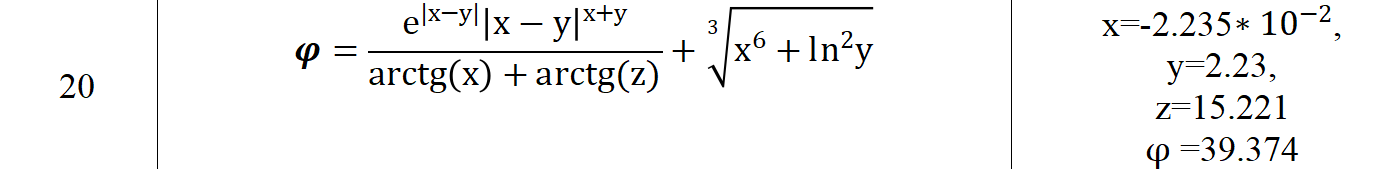
private: System::Void textBox1\_TextChanged(System::Object^ sender, System::EventArgs^ e) {

}

};

}

1. **Topshiriq**

**Dastur va Natijasi**

#pragma once

namespace myform2 {

using namespace System;

using namespace System::ComponentModel;

using namespace System::Collections;

using namespace System::Windows::Forms;

using namespace System::Data;

using namespace System::Drawing;

/// <summary>

/// Summary for Form1

/// </summary>

public ref class Form1 : public System::Windows::Forms::Form

{

public:

Form1(void)

{

InitializeComponent();

//

//TODO: Add the constructor code here

//

}

protected:

/// <summary>

/// Clean up any resources being used.

/// </summary>

~Form1()

{

if (components)

{

delete components;

}

}

private: System::Windows::Forms::Button^ button;

protected:

private: System::Windows::Forms::PictureBox^ pictureBox1;

private: System::Windows::Forms::Label^ label1;

private: System::Windows::Forms::TextBox^ X;

private: System::Windows::Forms::Label^ label2;

private: System::Windows::Forms::Label^ label3;

private: System::Windows::Forms::Label^ label4;

private: System::Windows::Forms::Label^ label5;

private: System::Windows::Forms::TextBox^ Y;

private: System::Windows::Forms::TextBox^ Z;

private: System::Windows::Forms::TextBox^ result\_label;

private: System::Windows::Forms::Button^ button1;

private:

/// <summary>

/// Required designer variable.

/// </summary>

System::ComponentModel::Container ^components;

#pragma region Windows Form Designer generated code

/// <summary>

/// Required method for Designer support - do not modify

/// the contents of this method with the code editor.

/// </summary>

void InitializeComponent(void)

{

System::ComponentModel::ComponentResourceManager^ resources = (gcnew System::ComponentModel::ComponentResourceManager(Form1::typeid));

this->button = (gcnew System::Windows::Forms::Button());

this->pictureBox1 = (gcnew System::Windows::Forms::PictureBox());

this->label1 = (gcnew System::Windows::Forms::Label());

this->X = (gcnew System::Windows::Forms::TextBox());

this->label2 = (gcnew System::Windows::Forms::Label());

this->label3 = (gcnew System::Windows::Forms::Label());

this->label4 = (gcnew System::Windows::Forms::Label());

this->label5 = (gcnew System::Windows::Forms::Label());

this->Y = (gcnew System::Windows::Forms::TextBox());

this->Z = (gcnew System::Windows::Forms::TextBox());

this->result\_label = (gcnew System::Windows::Forms::TextBox());

this->button1 = (gcnew System::Windows::Forms::Button());

(cli::safe\_cast<System::ComponentModel::ISupportInitialize^ >(this->pictureBox1))->BeginInit();

this->SuspendLayout();

//

// button

//

this->button->AccessibleRole = System::Windows::Forms::AccessibleRole::None;

this->button->BackColor = System::Drawing::Color::Red;

this->button->Cursor = System::Windows::Forms::Cursors::Default;

this->button->FlatStyle = System::Windows::Forms::FlatStyle::Popup;

this->button->Font = (gcnew System::Drawing::Font(L"Sans Serif Collection", 10.2F, System::Drawing::FontStyle::Bold, System::Drawing::GraphicsUnit::Point,

static\_cast<System::Byte>(0)));

this->button->ForeColor = System::Drawing::Color::White;

this->button->Location = System::Drawing::Point(485, 12);

this->button->Name = L"button";

this->button->Size = System::Drawing::Size(39, 42);

this->button->TabIndex = 1;

this->button->Text = L"x";

this->button->UseVisualStyleBackColor = false;

this->button->Click += gcnew System::EventHandler(this, &Form1::button\_Click);

//

// pictureBox1

//

this->pictureBox1->Image = (cli::safe\_cast<System::Drawing::Image^ >(resources->GetObject(L"pictureBox1.Image")));

this->pictureBox1->Location = System::Drawing::Point(72, 60);

this->pictureBox1->Name = L"pictureBox1";

this->pictureBox1->Size = System::Drawing::Size(389, 98);

this->pictureBox1->SizeMode = System::Windows::Forms::PictureBoxSizeMode::StretchImage;

this->pictureBox1->TabIndex = 2;

this->pictureBox1->TabStop = false;

//

// label1

//

this->label1->AutoSize = true;

this->label1->Font = (gcnew System::Drawing::Font(L"Palatino Linotype", 13.8F, System::Drawing::FontStyle::Bold, System::Drawing::GraphicsUnit::Point,

static\_cast<System::Byte>(0)));

this->label1->Location = System::Drawing::Point(66, 205);

this->label1->Name = L"label1";

this->label1->Size = System::Drawing::Size(37, 32);

this->label1->TabIndex = 3;

this->label1->Text = L"X:";

//

// X

//

this->X->Location = System::Drawing::Point(99, 213);

this->X->Name = L"X";

this->X->Size = System::Drawing::Size(362, 22);

this->X->TabIndex = 4;

//

// label2

//

this->label2->AutoSize = true;

this->label2->Font = (gcnew System::Drawing::Font(L"Palatino Linotype", 12, System::Drawing::FontStyle::Bold, System::Drawing::GraphicsUnit::Point,

static\_cast<System::Byte>(0)));

this->label2->Location = System::Drawing::Point(119, 170);

this->label2->Name = L"label2";

this->label2->Size = System::Drawing::Size(312, 27);

this->label2->TabIndex = 5;

this->label2->Text = L"Boshlang\'ich qiymatlarni kiriting";

this->label2->TextAlign = System::Drawing::ContentAlignment::MiddleCenter;

//

// label3

//

this->label3->AutoSize = true;

this->label3->Font = (gcnew System::Drawing::Font(L"Palatino Linotype", 13.8F, System::Drawing::FontStyle::Bold, System::Drawing::GraphicsUnit::Point,

static\_cast<System::Byte>(0)));

this->label3->Location = System::Drawing::Point(66, 249);

this->label3->Name = L"label3";

this->label3->Size = System::Drawing::Size(37, 32);

this->label3->TabIndex = 6;

this->label3->Text = L"Y:";

//

// label4

//

this->label4->AutoSize = true;

this->label4->Font = (gcnew System::Drawing::Font(L"Palatino Linotype", 13.8F, System::Drawing::FontStyle::Bold, System::Drawing::GraphicsUnit::Point,

static\_cast<System::Byte>(0)));

this->label4->Location = System::Drawing::Point(66, 300);

this->label4->Name = L"label4";

this->label4->Size = System::Drawing::Size(37, 32);

this->label4->TabIndex = 7;

this->label4->Text = L"Z:";

//

// label5

//

this->label5->AutoSize = true;

this->label5->Font = (gcnew System::Drawing::Font(L"Palatino Linotype", 13.8F, System::Drawing::FontStyle::Bold, System::Drawing::GraphicsUnit::Point,

static\_cast<System::Byte>(0)));

this->label5->Location = System::Drawing::Point(66, 391);

this->label5->Name = L"label5";

this->label5->Size = System::Drawing::Size(34, 32);

this->label5->TabIndex = 8;

this->label5->Text = L"F:";

//

// Y

//

this->Y->Location = System::Drawing::Point(99, 257);

this->Y->Name = L"Y";

this->Y->Size = System::Drawing::Size(362, 22);

this->Y->TabIndex = 9;

this->Y->TextChanged += gcnew System::EventHandler(this, &Form1::textBox2\_TextChanged);

//

// Z

//

this->Z->Location = System::Drawing::Point(99, 308);

this->Z->Name = L"Z";

this->Z->Size = System::Drawing::Size(362, 22);

this->Z->TabIndex = 10;

//

// result\_label

//

this->result\_label->Location = System::Drawing::Point(106, 399);

this->result\_label->Name = L"result\_label";

this->result\_label->Size = System::Drawing::Size(362, 22);

this->result\_label->TabIndex = 11;

this->result\_label->TextChanged += gcnew System::EventHandler(this, &Form1::result\_label\_TextChanged);

//

// button1

//

this->button1->BackColor = System::Drawing::Color::Green;

this->button1->FlatStyle = System::Windows::Forms::FlatStyle::Popup;

this->button1->Font = (gcnew System::Drawing::Font(L"Microsoft Sans Serif", 10.2F, System::Drawing::FontStyle::Bold, System::Drawing::GraphicsUnit::Point,

static\_cast<System::Byte>(0)));

this->button1->ForeColor = System::Drawing::Color::White;

this->button1->Location = System::Drawing::Point(156, 352);

this->button1->Name = L"button1";

this->button1->Size = System::Drawing::Size(220, 29);

this->button1->TabIndex = 12;

this->button1->Text = L"Natijani hisoblash";

this->button1->UseVisualStyleBackColor = false;

this->button1->Click += gcnew System::EventHandler(this, &Form1::button1\_Click);

//

// Form1

//

this->AutoScaleDimensions = System::Drawing::SizeF(8, 16);

this->AutoScaleMode = System::Windows::Forms::AutoScaleMode::Font;

this->BackColor = System::Drawing::SystemColors::ActiveCaption;

this->ClientSize = System::Drawing::Size(550, 455);

this->Controls->Add(this->button1);

this->Controls->Add(this->result\_label);

this->Controls->Add(this->Z);

this->Controls->Add(this->Y);

this->Controls->Add(this->label5);

this->Controls->Add(this->label4);

this->Controls->Add(this->label3);

this->Controls->Add(this->label2);

this->Controls->Add(this->X);

this->Controls->Add(this->label1);

this->Controls->Add(this->pictureBox1);

this->Controls->Add(this->button);

this->FormBorderStyle = System::Windows::Forms::FormBorderStyle::None;

this->Name = L"Form1";

this->Text = L"Form1";

(cli::safe\_cast<System::ComponentModel::ISupportInitialize^ >(this->pictureBox1))->EndInit();

this->ResumeLayout(false);

this->PerformLayout();

}

#pragma endregion

private: System::Void button\_Click(System::Object^ sender, System::EventArgs^ e) {

this->Close();

}

private: System::Void button1\_Click(System::Object^ sender, System::EventArgs^ e) {

double x, y, z, f;

if((this->X->Text !="")&&(this->Y->Text !="")&&(this->Z->Text !="")){

x = Convert::ToDouble(this->X->Text);

y = Convert::ToDouble(this->Y->Text);

z = Convert::ToDouble(this->Z->Text);

f = Math::Exp(Math::Abs(x-y))\*Math::Pow(Math::Abs(x-y),x+y)/(Math::Atan(x)+Math::Atan(z)) + Math::Pow(Math::Pow(x,6) + Math::Pow(Math::Log(y),2), 1.0/3.0);

this->result\_label->Text = Convert::ToString(f);

}

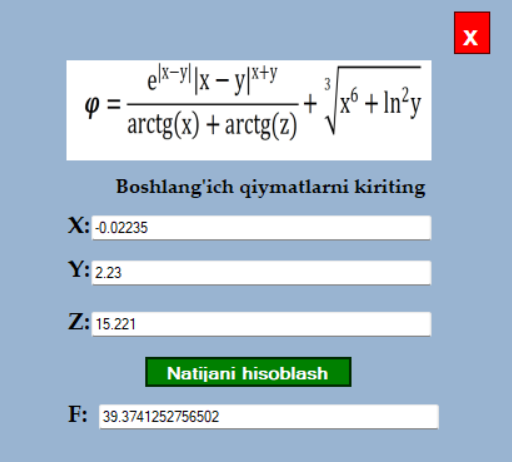
}

private: System::Void textBox2\_TextChanged(System::Object^ sender, System::EventArgs^ e) {

}

private: System::Void result\_label\_TextChanged(System::Object^ sender, System::EventArgs^ e) {

}

};

}