//---------------------------------------------------------------------------

#include <Math.hpp>

#include <math.h>

#include <vcl.h>

#pragma hdrstop

#include "Unit1.h"

//---------------------------------------------------------------------------

#pragma package(smart\_init)

#pragma resource "\*.dfm"

TForm1 \*Form1;

float sum(float x,int n);

float func(float x);

//---------------------------------------------------------------------------

\_\_fastcall TForm1::TForm1(TComponent\* Owner)

: TForm(Owner)

{

}

//---------------------------------------------------------------------------

void \_\_fastcall TForm1::Button2Click(TObject \*Sender)

{

Close();

}

//---------------------------------------------------------------------------

void \_\_fastcall TForm1::Button1Click(TObject \*Sender)

{

float x1,x2,y,s;

x1=3.14159265/5.0;

x2=4\*3.14159265/5.0;

const d=40;

double h=((4.0\*3.14159265/5.0)-(3.14159265/5.0))/10.0;

while (x1 <= x2){

y=func(x1);

s=sum(x1,d);

Memo1->Lines->Add(FloatToStr(y));

Memo2->Lines->Add(FloatToStr(s));

x1+=h;

}

}

//---------------------------------------------------------------------------

void \_\_fastcall TForm1::FormCreate(TObject \*Sender)

{

Memo1->Clear();

Memo2->Clear();

}

//---------------------------------------------------------------------------

float sum(float x,int n)

{

if(!n)

return 0;

else

return(sum(x,n-1)+Power(-1,n+1)\*sin(n\*x)/n);

}

//---------------------------------------------------------------------------

float func(float x)

{

return(x/2.0);

}

//---------------------------------------------------------------------------