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Date when code was written: 2013

Directory structure: Triangle Type Detection

1. **Using the connection of three sides to decect the type of tranigle，and error detection.**

// Course.cpp: 主要專案檔。

#include "stdafx.h"

#include "iostream"

#include "math.h"

using namespace System;

int main(array<System::String ^> ^args)

{

Console::Write("請輸入邊長 a：");

int a = Convert::ToInt32(Console::ReadLine());

Console::Write("請輸入邊長 b：");

int b = Convert::ToInt32(Console::ReadLine());

Console::Write("請輸入邊長 c：");

int c = Convert::ToInt32(Console::ReadLine());

if(a>0 && b>0 && c>0)

{

if(a+b>c && b+c>a && c+a>b)

{

if(a\*a+b\*b==c\*c || b\*b+c\*c==a\*a || c\*c+a\*a==b\*b)

{

Console::WriteLine("直角三角形");

}

else if (a\*a+b\*b>c\*c || b\*b+c\*c>a\*a || c\*c+a\*a>b\*b)

{

Console::WriteLine("銳角三角形");

}

else

{

Console::WriteLine("鈍角三角形");

}

float s = (float)(a+b+c)/2;

float area = sqrt(s\*(s-a)\*(s-b)\*(s-c));

Console::WriteLine(Convert::ToString(area));

}

else

Console::WriteLine("此邊長不能成為三角形");

}

else

Console::WriteLine("沒有此邊長");

system("pause");

return 0;

}