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#include "library.h"

void area\_triangle(){

double height = 0.0, breadth = 0.0;

//int number;

cout<<"This program will calculate area of a triangle" <<endl;

cout<<endl<<"Input the height of the triangle:";

cin>> height;

if(height<=0){

cout<<endl<<"Invalid input. Value should be greater than 0";

}

cout<<endl<<"Input the breadth of the triangle:";

cin>> breadth;

if(breadth<=0){

cout<<endl<<"Invalid Input. Value should be greater than 0";

}

cout<<"The area of the triangle is"<<(0.5\*height\*breadth)<<"sq. units";

}

void area\_square(){

double length = 0.0;

//int number;

cout<<"This program will calculate area of a square" <<endl;

cout<<endl<<"Input the length of the square:";

cin>> length;

if(length<=0){

cout<<endl<<"Invalid input. Value should be greater than 0";

}

cout<<"The area of the square is"<<(length\*length)<<"sq. units";

}

void area\_circle(){

//pi\*r^2

double const pi = acos(-1.0);

double radius = 0.0;

//int number;

cout<<"This program will calculate area of a circle" <<endl;

cout<<endl<<"Input the radius of the circle:";

cin>> radius;

if(radius<=0){

cout<<endl<<"Invalid input. Value should be greater than 0";

}

cout<<"The area of the circle is"<<(pi\*(radius\*radius))<<"sq. units";

}

void main(){

cout<<endl<< "This program will calculate the areas of triangle, circle, and square. \n Please input the number corresponding to area calculator: \n Triangle: 1 \n Circle: 2 \n Square: 3";

//cout<<"Please input the number corresponding to area calculator:\n"<<endl;

//cout<<" Triangle: 1 \n Circle: 2 \n Square: 3"<<endl;

/\*

int number;

cin>> number;

if(number = 1){

cout<<endl<< area\_triangle;

}

else if ( number = 2){

cout<<endl<< area\_circle;

}

else if( number = 3){

cout<<endl<< area\_square;

}

else {

Cout<<endl<< "Invalid input";

\*/

}

}