// Write a program to calculate the area of a circle, rectangle,

// square, triangle upon user's choice while the area of each

// figure is calculated by an overloaded area function.

#include <iostream.h>

#include <math.h>

#include <conio.h>

#include <stdlib.h>

float area(float); // Circle

float area(int, float); // Rectangle

int area(int); // Square

float area(float, float); // Triangle

void main() {

clrscr();

int y, l;

float b, h, r, a;

cout << "Find area of:" << endl;

cout << "1) Circle" << endl;

cout << "2) Rectangle" << endl;

cout << "3) Square" << endl;

cout << "4) Triangle" << endl;

cout << "\nEnter your choice: "; cin >> y;

switch (y) {

case 1:

cout << "Enter radius: "; cin >> r;

a = area(r); break;

case 2:

cout << "Enter length: "; cin >> l;

cout << "Enter breadth: "; cin >> b;

a = area(l, b); break;

case 3:

cout << "Enter length: "; cin >> l;

a = area(l); break;

case 4:

cout << "Enter base: "; cin >> b;

cout << "Enter height: "; cin >> h;

a = area(b, h); break;

default:

cout << "\nCheck your choice.";

getch(); exit(0);

}

cout << "\nArea calculated : " << a << endl;

getch();

}

// Circle

float area(float rad) {

return M\_PI \* rad \* rad;

}

// Rectangle

float area(int length, float breadth) {

return length \* breadth;

}

// Square

int area(int length) {

return length \* length;

}

// Triangle

float area(float base, float height) {

return 0.5 \* base \* height;

}