#include <iostream>

using namespace std;

int main()

{

int shape;

int choice;

float l, b, h, r, a, height, perimeter, circumference, Continue;

Continue = 1;

while (Continue == 1) {

shape = 0;

choice = 0;

while (shape > 3 || shape < 1) {

cout << "Please Select What Shape You Would Like To find the area/perimeter of: " << endl;

cout << "Type the number 1, 2, or 3 to select which shape: " << endl;

cout << "1. Square" << endl;

cout << "2. Triangle" << endl;

cout << "3. Circle" << endl;

cin >> shape;

}

if (shape == 1){ //Square

while (choice > 2 || choice < 1) {

cout << "Select if you want to find the AREA or PERIMETER of the Square: " << endl;

cout << "1. Area " << endl;

cout << "2. Perimeter " << endl;

cin >> choice;

}

if (choice == 1){

cout << "Enter the Length" << endl;

cin >> l;

cout << "Enter the Height" << endl;

cin >> height;

a = l \* height;

cout << "The Area is: " << a << endl;

}

else if (choice == 2){

cout << "Please Enter The Length" << endl;

cin >> l;

cout << "Please Enter The Height" << endl;

cin >> height;

perimeter = l + l + height + height;

cout << "The Perimeter Is: " << perimeter << endl;

}

}

else if (shape == 2){ //Triangle

while (choice > 2 || choice < 1) {

cout << "Select if you want to find the AREA or PERIMETER of the Triangle: " << endl;

cout << "1. Area " << endl;

cout << "2. Perimeter " << endl;

cin >> choice;

}

if (choice ==1)

{

cout << "Please Enter The Base" << endl;

cin >> b;

cout << "Please Enter The Height" << endl;

cin >> h;

a = .5 \* b \* h;

cout << "The Area Is: " << a << endl;

}

else if (choice==2)

{

cout << "Please Enter The Base" << endl;

cin >> b;

cout << "Please Enter The Height" << endl;

cin >> h;

perimeter = (b + b + h + h) /2;

cout << "The Perimeter Is: " << perimeter << endl;

}

}

else if (shape == 3){ //Circle

while (choice > 2 || choice < 1) {

cout << "Select if you want to find the AREA or CIRCUMFERENCE of the circle: " << endl;

cout << "1. Area " << endl;

cout << "2. Circumference " << endl;

cin >> choice;

}

if (choice==1)

{

cout << "Please Enter The Radius" << endl;

cin >> r;

a = 3.14 \* r \* r;

cout << "The Area Is: " << a << endl;

}

else if (choice==2)

{

cout << "Please Enter The Radius" << endl;

cin >> r;

circumference = 3.14 \* r \* 2;

cout << "The Circumference Is: " << circumference << endl;

}

}

Continue = 0;

while (Continue > 2 || Continue < 1) {

cout << "Do you want to find another shape?" << endl;

cout << "\n1=Yes\n\n2=no" << endl;

cin >> Continue;

}

}

return 0;

}