Problem: 1

Create a method called fullName. This method can take two string parameters firstName and lastName. And it will return the full name. Finally show the full name as output.

Problem: 2

Create two methods named Triangle:

First method takes two double-type parameters whose names are base and height respectively. Calculate the area of triangle and return it. Also, show the result of the area.

Hint: Area = 0.5 \* base \* height;

Second method takes three double type Parameter whose names are base, perpendicular and hyperbola respectively. Calculate the perimeter of Triangle and return it. Also show the result of Perimeter.

Hint: perimeter = base + perpendicular + hyperbola;

Problem: 3

Create some Methods whose names are Average. Average methods can take 2,3,4, and 5 int types parameters. Implement All methods. And show the Average for each.

#include<iostream>

#include <cmath>

using namespace std;

class Triangle{

    float base, perpendicular, hyperbola;

    public:

        Triangle(float b, float p, float h){

            base = b;

            perpendicular = p;

            hyperbola = h;

        }

        Triangle(){

            base = 3;

            perpendicular = 4;

            hyperbola = 5;

        }

        float area(){

            float s = (base + perpendicular + hyperbola)/2;

            return  sqrt((s \* ((s-base) \* (s-perpendicular) \* (s-hyperbola))));

        }

        float perimeter(){

            return base + perpendicular + hyperbola;

        }

};

int main(){

    Triangle ob;

    cout << "Area: " << ob.area() << endl;

    cout << "Perimeter: " << ob.perimeter() << endl;

    Triangle ob1(2,3,2);

    cout << "Area: " << ob1.area() << endl;

    cout << "Perimeter: " << ob1.perimeter() << endl;

}

Create a class name Triangle. Which have tree private data member base, perpendicular and hyperbola. Create a parametrized constructor to initialize all data members values. Also create a default constructor and set values respectively 3,4,5 on base, perpendicular and hyperbola. Now create non-members void methods peri\_area which takes a Triangle object. Calculate perimeter and area on those method. Also show result of area and perimeter for each.

#include<iostream>

#include <cmath>

using namespace std;

class Triangle{

    float base, perpendicular, hyperbola;

    public:

        Triangle(float b, float p, float h){

            base = b;

            perpendicular = p;

            hyperbola = h;

        }

        Triangle(){

            base = 3;

            perpendicular = 4;

            hyperbola = 5;

        }

        friend void peri\_area(Triangle);

};

void peri\_area(Triangle ob){

    float s = (ob.base + ob.perpendicular + ob.hyperbola)/2;

    float perimeter = ob.base + ob.perpendicular + ob.hyperbola;

    float area = sqrt((s \* ((s-ob.base) \* (s-ob.perpendicular) \* (s-ob.hyperbola))));

    cout << "Area: " << area << endl;

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

};

int main(){

    Triangle ob;

    peri\_area(ob);

    Triangle ob1(2,3,2);

    peri\_area(ob1);

}

Create a class name Triangle. Which have tree private data member base, perpendicular and hyperbola and also have two public data member area and perimeter. Create a parametrized constructor to initialize base, perpendicular and hyperbola values. Also create a default constructor and set values respectively 3,4,5 on base, perpendicular and hyperbola. Now create a non-members methods peri\_area which takes a Triangle object and return a Triangle object. Calculate perimeter and area on those method. Also show result of area and perimeter for each.

#include<iostream>

#include <cmath>

using namespace std;

class Triangle{

    float base, perpendicular, hyperbola;

    public:

        float area, perimeter;

        Triangle(float b, float p, float h){

            base = b;

            perpendicular = p;

            hyperbola = h;

        }

        Triangle(){

            base = 3;

            perpendicular = 4;

            hyperbola = 5;

        }

         friend Triangle peri\_area(Triangle);

};

Triangle peri\_area(Triangle ob){

    float s = (ob.base + ob.perpendicular + ob.hyperbola)/2;

    ob.perimeter = ob.base + ob.perpendicular + ob.hyperbola;

    ob.area = sqrt((s \* ((s-ob.base) \* (s-ob.perpendicular) \* (s-ob.hyperbola))));

    return ob;

};

int main(){

    Triangle ob;

    Triangle objCal = peri\_area(ob);

    cout << "Area: " << objCal.area << endl;

    cout << "Perimeter: " << objCal.perimeter << endl;

    Triangle ob1(2,3,2);

    objCal = peri\_area(ob1);

    cout << "Area: " << objCal.area << endl;

    cout << "Perimeter: " << objCal.perimeter << endl;

}

Create a class name Average. Declared three variables that are entered by the user. Pass those variables as constructor arguments. Create a method that calculates the average of three numbers and returns it. And show the result of average.

#include <iostream>

using namespace std;

class Average{

    public:

        int a,b,c;

        Average(int x, int y, int z){

            a = x;

            b = y;

            c = z;

        }

        int calculte(){

            return (a + b +c)/3;

        }

};

int main(){

    int x, y, z;

    cin >> x >> y >> z;

    Average ob(x, y, z);

    cout << endl;

    cout << "Average: " << ob.calculte() << endl;

}

Write a program by creating an 'Employee' class having the following methods and print the final salary.

1 - 'getInfo()' which takes the salary, number of hours of work per day of employee as parameter

2 - 'AddSal()' which adds $10 to salary of the employee if it is less than $500.

3 - 'AddWork()' which adds $5 to salary of employee if the number of hours of work per day is more than 6 hours.

#include <iostream>

using namespace std;

class Employee{

    public:

        int salary, hours;

        void getInfo(int s, int h) {

            salary = s;

            hours = h;

            if(s < 500){

                salary = AddSal();

            }

            if(h > 6){

                salary = AddWork();

            }

        }

        int AddSal(){

            salary = salary + 10;

            return salary;

        }

        int AddWork(){

            salary = salary + 5;

            return salary;

        }

};

int main(){

    Employee ob;

    ob.getInfo(400,7);

    cout << ob.salary << endl;

}

Write a program by creating an 'Employee' class having the following methods and print the final salary.

Note: Using all Member Variable declared as private

1 - 'getInfo()' which takes the salary, number of hours of work per day of employee as parameter.

2 - 'AddSal()' which adds $10 to salary of the employee if it is less than $500.

3 - 'AddWork()' which adds $5 to salary of employee if the number of hours of work per day is more than 6 hours.

4- Create A non-member method FinalSalary which takes Employee Object and return the final salary.

#include <iostream>

using namespace std;

class Employee{

    private:

        int salary, hours;

    public:

        void getInfo(int s, int h) {

            salary = s;

            hours = h;

            if(s < 500){

                salary = AddSal();

            }

            if(h > 6){

                salary = AddWork();

            }

        }

        int AddSal(){

            salary = salary + 10;

            return salary;

        }

        int AddWork(){

            salary = salary + 5;

            return salary;

        }

        friend int FinalSalary(Employee em);

};

int FinalSalary(Employee em){

    return em.salary;

}

int main(){

    Employee ob;

    ob.getInfo(400,7);

    cout << FinalSalary(ob) << endl;

}