**Code:**

//Area of circle, rectangle and triangle using function overloading

#include<iostream>

using namespace std;

const float pi=3.14; //Global declaration

class area{

float ar1,ar2,ar3;

public :

void are(float r)

{

ar1=(pi\*r\*r); //Find area of circle

}

void are(float n,float a,float b)

{

ar2=(n\*a\*b); //Find area of triangle

}

void are(float lr,float br)

{

ar3=(lr\*br); //Find area of rectangle

}

void display() //displaying the area of circle, rectangle and triangle

{

cout<<"Area of circle : "<<ar1<<endl;

cout<<"Area of rectangle : "<<ar3l<<endl;

cout<<"Area of triangle : "<<ar2<<endl;

}

};

int main()

{

float lr,br,c,b,r;

area a;

cout<<"Enter the radius : ";

cin>>r; //entering radius r

cout<<"Enter the length and breadth :";

cin>>lr>>br; //entering length lr and breadth br

cout<<"Enter the height and base :";

cin>>c>>b; //entering height c and base b

a.are(r); //calling function for area of circle

a.are(0.5,c,b); //calling function for area of triangle

a.are(lr,br); //calling function for area of rectangle

a.display();

return 0;

}

**Algorithm:**

Step 1: Start

Step 2: create the class of allarea type with private variable ar1, ar2, ar3.

Step 3: Declare and define functions “area” for calculating area of circle, rectangular and triangle.

Step 4: declare and define display function.

Step 5: declare the variables and call the allarea of type of class.

Step 6: take the input from user.

Step 7: stop

**Output:**

