S.No: 37	Exp. Name: ***Area of the Circle***	Date:2024-11-22

Aim:

Write a C program to find the area of the circle using call-by value and call-by reference.

Note:

- Take the pi value as 3.14.
- Print the result up to 2 decimal places.
- The driver function is provided to you in the editor.

Source Code:

area_circle.c

```
#include<stdio.h>
#define pi 3.14
double areaCallByValue(double radius){
   return pi*radius*radius;
}
void areaCallByReference(double radius,double * area){
   *area=pi*radius*radius;
}




int main() {
    double radius, area;

    printf("radius: ");
    scanf("%lf", &radius);

    // Calculate the area using call by value
    double areaByValue = areaCallByValue(radius);
    printf("Area(Call by value): %.2f\n", areaByValue);

    // Calculate the area using call by reference
    areaCallByReference(radius, &area);
    printf("Area(Call by reference): %.2f\n", area);

    return 0;
}
```

Execution Results - All test cases have succeeded!

Test Case - 1
User Output
radius: 7
Area(Call by value): 153.86
Area(Call by reference): 153.86

Test Case - 2
User Output
radius: 8.2
Area(Call by value): 211.13
Area(Call by reference): 211.13