

Lab. No. 12  
Secc 15  
Lizbeth Andrea Herrera Ortega  
Carnet: 1246024

## Laboratorio 12

### Program

```
using L12__Lizbeth_Herrera__1246024;

class Program
{
    public static void Main(string[] args)
    {
        Console.WriteLine("Ingrese el radio del círculo");
        string Radio = Console.ReadLine();
        double dRadio = double.Parse(Radio);
        Console.WriteLine();

        Circulo objCirculo = new Circulo(dRadio);

        double perimetro = 0;
        double area = 0;
        double volumen = 0;

        objCirculo.CalcularGeometria(ref perimetro, ref area, ref volumen);
        Console.WriteLine("Perímetro: " + perimetro);
        Console.WriteLine("Área: " + area);
        Console.WriteLine("Volumen: " + volumen);
    }
}
```

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### Clase Circulo

```
using System.Runtime.CompilerServices;

namespace L12___Lizbeth_Herrera___1246024;

public class Circulo
{
    private double radio;
    public Circulo(double radio)
    {
        this.radio = radio;
    }

    private double ObtenerPerimetro(double radio)
    {
        return 2 * Math.PI * radio;
    }

    private double ObtenerArea(double radio)
    {
        return Math.PI * Math.Pow(2, radio);
    }

    private double ObtenerVolumen(double radio)
    {
        return (4 * Math.PI * Math.Pow(3, radio)) / 3;
    }

    public void CalcularGeometria(ref double unPerimetro, ref double unArea,
ref double unVolumen)
    {
        unPerimetro = ObtenerPerimetro(radio);
        unArea = ObtenerArea(radio);
        unVolumen = ObtenerVolumen(radio);
    }
}
```