

## Method Overloading

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- Method overloading commonly is used to create several methods with the same name that perform similar tasks, but on different data types. C# enables several methods of the same name to be defined in the same class, as long as these methods have different sets of parameters.
- When an overloaded method is called, the C# compiler selects the proper method by examining the number, types and order of the call's arguments.

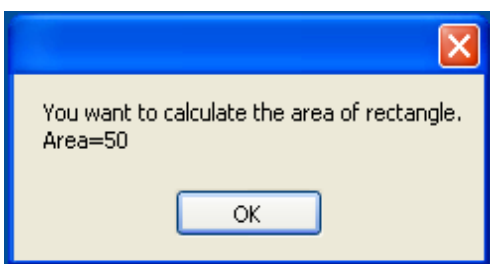
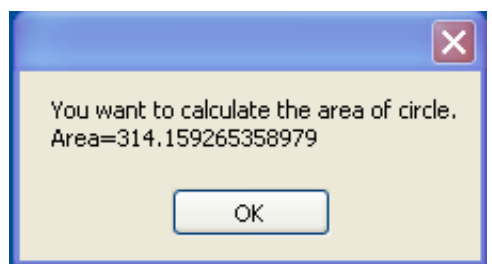
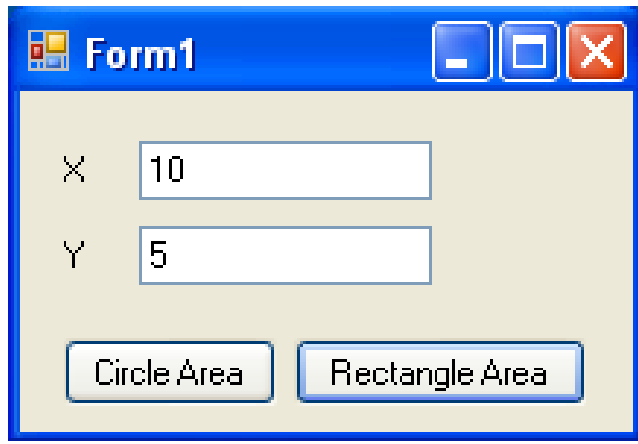
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```
class MyClass
{
    public static void Get(double Number, out double Square, out double Cube)
    {
        Square = Number * Number;
        Cube = Number * Number * Number;
    }
}

private void ButCalculate_Click(object sender, EventArgs e)
{
    double x, y, z;
    x = double.Parse(TxtX.Text);
    MyClass.Get(x, out y, out z);
    TxtSquare.Text = y.ToString();
    TxtCube.Text = z.ToString();
}
```

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```
private void ButCircleArea_Click(object sender, EventArgs e)
{
    double x, y, z;
    x = double.Parse(TxtX.Text);
    y = double.Parse(TxtY.Text);
    z = MyClass.Area(x);
    MessageBox.Show("You want to calculate the area of circle. \nArea="
        + z.ToString());
}

private void ButRectangleArea_Click(object sender, EventArgs e)
{
    double x, y, z;
    x = double.Parse(TxtX.Text);
    y = double.Parse(TxtY.Text);
    z = MyClass.Area(x,y);
    MessageBox.Show("You want to calculate the area of rectangle. \nArea="
        + z.ToString());
}
```

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