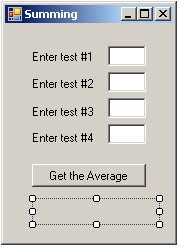
**Computer Programming 1  
Essential Standard 5.02 Understand Breakpoint, Watch Window, and Try And Catch to Find Errors.**

In all programs, put your name, the assignment name and the date in comments at the top.  
Reminder, put an apostrophe (‘) in front of your line to make it a comment.

1. Create a new project called Summing
   1. Design
      1. Add the controls shown on the form below. Name them appropriately  
         
      2. Create needed variables.
      3. Get the input from the TextBoxes and assign them to the appropriate variables.
      4. Calculate the average.
      5. Show the answer in the label.
   2. Debugging
      1. Add a breakpoint on the line where you are calculating the average.
      2. Run/Execute your program.
      3. Add Watch to your average variable.
      4. Step through your program and watch the Watch Window.
2. Open your Grades project.
   1. Follow the debugging instructions from #1.
3. Open your circleArea project.
   1. Part 1
      1. Add Watch to your radius and area variables.
      2. Step through your program and watch the values of your variables.
   2. Part 2
      1. Add the Try statement before you get your radius input.
      2. Modify your input statement as follows. (Note: Your variables may be named differently – use your names) The Convert method will change the string from the Textbox into a double data type.  
          dblRadius = Convert.ToDouble(txtRadius.Text)
      3. Add the Catch ex As Exception statement after you display the answer in the label.
      4. Add a MessageBox that tell the user to enter a radius that is numeric.
      5. Add the End Try statement.  
         Your code should look similar to the following.  
         Try  
          dblRadius = Convert.ToDouble(txtRadius.Text)  
          dblArea = dblPI \* dblRadius ^2  
          lblAnswer.Text = dblArea  
         Catch ex As Exception  
          MessageBox.Show(“Enter a radius that is numeric”)  
         End Try
      6. Run your program with input that is non-numeric and numeric.
4. Open your Grades project.
   1. Add appropriate Try..Catch statements around your input variables similar to circleArea above.
5. Create a new project called Fraction
   1. Design
      1. Add a button
         * Name: btnCalculate
         * Text: Calculate
      2. Create needed variables.
         * Numerator – Integer
         * Denominator – Integer
         * Answer - Double
      3. Get the input for the numerator and denominator using TextBoxes.
         * Use a Try…Catch.
      4. If the denominator is a positive number, calculate the equivalent decimal of the fraction.
      5. Show the answer in the label.