Centre for Academic Integrity

Honesty in Academics … Uncompromised Results

"Honesty, integrity and a strong work ethic are the qualities Lambton College believes are central to the development of exceptional students, employees and citizens."

Judith Morris
President and CEO
Lambton College

LAMBTON COLLEGE TEST-TAKING:

- Take precautions to ensure you have all tools needed to complete this evaluation (pens, pencils, pencil sharpeners, permitted calculators). Clear away any items not used for testing (phones, smart watches, water bottles, hats, unauthorized calculators, etc.)
- Ensure that your person and workspace (desk, lab bench, computer desk) are clear of anything that could be perceived as a means to cheat.
- Do not communicate with others outside of the test invigilator(s) during your evaluation.

(For a full reading of student required behaviours, consult the *Test and Exam Writing Procedure* and *Student Rights and Responsibilities and Discipline Policy* on MyLambton.)

CSD-2354 1st Test

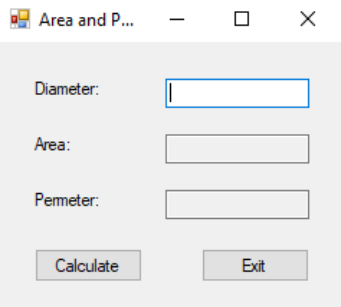
This document contains a selection of questions that will test your knowledge & comprehension of the first units of this course. Complete this using only your textbook, my slides and https://docs.microsoft.com/en-us/dotnet/csharp/ as resources.

Submit a zip containing the test01 folder, which should contain both completed problems to the provided dropbox. This test is worth 25% of you final grade.

/60

Calculate area and perimeter – 26 points

In this exercise, you'll create a form that accepts the diameter of a circle from the user and then calculates the area and perimeter of the circle.



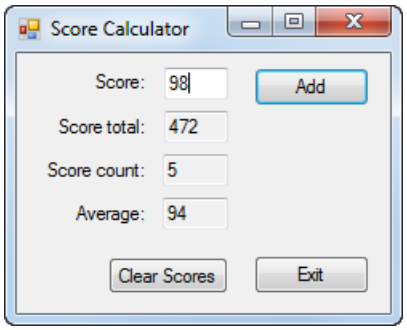
1. Start a new project named AreaAndPerimeter in the test01\AreaAndPerimeter directory.
2. Add labels, text boxes, and buttons to the default form and set the properties of the form and its controls so they appear as shown above. When the user presses the Enter key, the Click event of the Calculate button should fire. When the user presses the Esc key, the Click event of the Exit button should fire. (10 points)
3. Create an event handler for the Click event of the Calculate button. This event handler should get the values the user enters for the length and width, calculate and display the area ($\pi \times r^2$) and perimeter ($2 \times \pi \times r$), ($r = \frac{1}{2} \times d$), and move the focus to the Length text box. It should provide for decimal entries, but you can assume that the user will enter valid decimal values. Units don't matter today. (9 points)
4. Create an event handler for the Click event of the Exit button that closes the form. (2 points)

Test the application to be sure it works correctly.

5. Make sure you use camel case, and commenting (5 points)

Accumulate test score data – 34 points

In this exercise, you'll create a form that accepts one or more scores from the user. Each time a score is added, the score total, score count, and average score are calculated and displayed.



1. Start a new project named ScoreCalculator in the test01\ScoreCalculator directory.
2. Add labels, text boxes, and buttons to the default form and set the properties of the form and its controls so they appear as shown above. When the user presses the Enter key, the Click event of the Add button should fire. When the user presses the Esc key, the Click event of the Exit button should fire. (10 points)
3. Declare two class variables to store the score total and the score count. (2 points)
4. Create an event handler for the Click event of the Add button. This event handler should get the score the user enters, calculate and display the score total, score count, and average score, and move the focus to the Score text box. It should provide for integer entries, but you can assume that the user will enter valid integer values. (10 points)
5. Create an event handler for the Click event of the Clear Scores button. This event handler should set the two class variables to zero, clear the text boxes on the form, and move the focus to the Score text box. (5 points)
6. Create an event handler for the Click event of the Exit button that closes the form. (2 points)
7. Test the application to be sure it works correctly.
8. Make sure you use camel case, and commenting (5 points)

Bonus – 2 points

In the comments for one of the apps write me a joke; a pun, a limerick, a chicken joke, an elephant & ant joke, or a knock-knock joke, something funny that's not a hate crime.