

Name: \_\_\_\_\_  
Student ID: \_\_\_\_\_

## Quiz 8

This quiz is graded out of 10 marks. No books, calculators, notes or cell phones are allowed. You must show all your work, the correct answer is worth 1 mark the remaining marks are given for the work. If you need more space for your answer use the back of the page.

**Question 1.** (5 marks) §7.1 #20 Sketch the region enclosed by the given curves and find its area.

$$y = \cos \pi x, \quad y = 4x^2 - 1$$

**Question 2.** (5 marks) §7.4 #15 Find the exact length of the curve.

$$y = \frac{1}{4}x^2 - \frac{1}{2}\ln x, \quad 1 \leq x \leq 2$$