

Name: _____
Student ID: _____

Quiz 4

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. §23.7 #31 (3 marks) Find the derivative.

$$f(R) = \sqrt{\frac{2R+1}{4R+1}}$$

Question 2. §23.8 #19 (4 marks) At what point(s) does the graph of $x^2 + y^2 = 4x$ have a horizontal tangent?

Question 3. §23.9 #29 (3 marks) Find the second derivative.

$$x^2 - xy = 1 - y^2$$