

Name: _____
Student ID: _____

Quiz 2

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. §23.2 #13 (5 marks) Use the delta method to find a general expression for the slope of a tangent line to each of the indicated curves. Then find the slopes for the give values of x . Sketch the curves and tangent lines.

$$y = 6x - x^2; x = -2, x = 3$$

Question 2. §23.3 #11 (2 marks) Find the derivative of each of the functions by using the definition.

$$y = x^2 - 7x$$

Question 3. §23.3 #20 (3 marks) Find the derivative of each of the functions by using the definition.

$$y = \frac{x}{x-1}$$