

Quiz 4

This quiz is graded out of 10 marks. No books, 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.

- a. pg. 801 #27 (3 marks)

$$y = 2 \sin^2 3x \cos 2x$$

- b. pg. 805 #15 (3 marks)

$$y = \sqrt{\sec 4x}$$

- c. pg. 809 #27 (4 marks)

$$y = \arctan\left(\frac{1-t}{1+t}\right)$$

$$a) \quad y' = 2 \cdot 2 \sin 3x \cos 3x \cdot 3 \cos 2x + 2 \sin^2 3x (-\sin 2x) \cdot 2$$

$$b) \quad y' = \frac{1}{2} (\sec 4x)^{-\frac{1}{2}} \sec 4x \tan 4x \cdot 4$$

$$c) \quad y' = \frac{1}{1 + \left(\frac{1-t}{1+t}\right)^2} \left[\frac{(-1)(1+t) - (1)(1-t)}{(1+t)^2} \right]$$