

Quiz 6

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. §3.1 #75 (2 marks) Find the derivative of the function f .

$$f(x) = \frac{2}{x^2} - \frac{3}{x^{1/3}}$$

Question 2. §3.2 #13 (4 marks) Find the derivative of the function f .

$$f(x) = (x^2 - 5x + 2) \left(x - \frac{2}{x} \right)$$

Question 3. §3.2 #25 (4 marks) Find the derivative of the function f .

$$f(x) = \frac{x+1}{2x^2+2x+3}$$

Question 4. (2 marks) Find the exact value of:

$$\arccos\left(-\frac{\sqrt{3}}{2}\right)$$

Question 5. (3 marks) Find the indicated limit, if it exists

$$\lim_{x \rightarrow -5} \frac{\sqrt{14+x} - 3}{x+5}$$