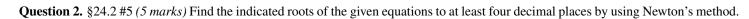**Name:** _____

Student ID: _____

Quiz 5

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. §24.1 #31 *(5 marks)* Find the equations of the lines normal to the indicated curves at the given points. Sketch the curve and the normal line.

$y = 6x - 2x^2$ at $(2, 4)$

Question 2. §24.2 #5 *(5 marks)* Find the indicated roots of the given equations to at least four decimal places by using Newton's method.

$x^3 - 6x^2 + 10x - 4 = 0$ between 0 and 1)