

Name: _____
Student ID: _____

Assignment 2

This assignment is graded out of 10 marks. 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. (5 marks) Maximize $p = 8x_1 + 9x_2 + 4x_3$ subject to the constraints

$$x_1 + x_2 + 2x_3 \leq 2$$

$$2x_1 + 3x_2 + 4x_3 \leq 3$$

$$7x_1 + 6x_2 + 2x_3 \leq 8$$

Question 2. (5 marks) Maximize $p = x_1 + 2x_2 + 4x_3 + 5x_4$ subject to the constraints

$$x_1 + x_2 + x_4 \leq 44$$

$$2x_1 + x_2 + 2x_3 + 5x_4 \leq 200$$

$$x_1 + x_3 \leq 50$$