Name: _____

Student ID: _____

Bonus Quiz 2

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. *(5 marks)* Evaluate the integral if it converges.

$$\int_1^\infty \frac{1}{(2x-1)^{3/2}}\, dx$$

Question 2. *(5 marks)* Verify that

$$y = \frac{C}{x}$$

is a general solution of

$$y' + \left(\frac{1}{x}\right)y = 0$$

and find the particular solution that satisfies $y(1) = 1$.