King Fahd University of Petroleum and Minerals
Department of Mathematics and Statistics
Math 101 (121) - Quiz 5

Name:                                    ID:                                    Serial No.:

1. Find the value of $c$ that satisfy the Mean Value Theorem

$$y = \begin{cases} 2x - 3, & 0 \leq x \leq 2 \\ 6x - x^2 - 7, & 2 < x \leq 3 \end{cases}$$

2. Consider the function

$$g(x) = x^{2/3}(x + 5)$$

(a) Find the intervals on which the function is increasing and decreasing

(b) Find the local extreme values.