**CS2150L Quiz #2**

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| First Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Last Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
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* You **may** utilize search engines (such as Google) to search for information.
* You **may** use any previous or future Lab handouts.
* You **may** ask other classmates, using any means of communication, any questions during the quiz.
* Question 4 is a bonus question.

1. Consider the function. If we provide 1 and 2 as initial points to bisection algorithm for finding roots of this function would it give you a solution? Show your work. [5]

1. Consider the same initial points and function as above. What would be the value of root approximated by method of false position after first iteration? Show work. [10]
2. Consider a function. Now suppose you are given an initial point. Calculate the root approximated by Newton Raphson method after first iteration. Show work. [10]
3. [Bonus] Consider the following graph. Two initial points (a, f(a)) and (b, f(b)) are shown on the graph. Show graphically the point at which the root would be estimated based on these initial points by method of false position. [5]

Exact Root

y

x