Reading Assignment for Section 4.6

MATH 130: Calculus I, Sections 2 and 3
Fall Semester 2013

Follow the general guidelines for the Reading Assignment (the salmon colored handout). Be sure to include and label all four standard parts a,b,c,d of the Reading Assignment in what you hand in. Be sure to **staple** together pages if you have more than one, and include your **name** and which **section** of calculus you are in at the top of the page. Neatness is appreciated!!!

Due: at the beginning of class on Monday, November 11th

Read:

Section 4.6, pages 274-278: Rolle's Theorem and the Mean Value Theorem!

Notes: The Mean Value Theorem is an incredibly important theorem in calculus used to prove many other theorems, not the least of which is the Fundamental Theorem of Calculus, which is studied in Calculus II. Rolle's Theorem can be thought of as a special case of the Mean Value Theorem, but we look at it first in part because it is visually easier to grasp and in part because we can use it to prove the Mean Value Theorem! :-)

Remember that your answers should include complete sentences for every question.

Reading Questions for part (a):

1. (a) Rolle's Theorem has three hypotheses. What are they? (b) Why do we need all three of them? Is it possible that we could leave one out and still draw the same conclusion?

2. (a) State the Mean Value Theorem. (b) Describe in your own words what it is saying and use a diagram to illustrate.

Remember parts b-d on the salmon handout!