Reading Assignment for Section 4.2

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 4th

Read:

Section 4.2, pages 232-242: What Derivatives Tell Us!

Notes:

In the previous section we learned about what local extrema are, but how do we find them? In this section we figure out how to determine where our local minimums and maximums are. We also find out about how derivatives can tell us many other features of a function, so many other features that afterwards we will be able to graph functions by hand!

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

Reading Questions for part (a):

1. Explain why it makes sense to look at the first derivative of a function $f(x)$ to determine where f is increasing and where f is decreasing.

2. (a) What is the Second Derivative Test used for? (b) What does the Second Derivative Test say?

Remember parts b-d on the salmon handout!