

Reading Assignment for Section 6.1

MATH 131: Calculus II, Section 1
Spring Semester 2014

Follow the general guidelines for the Reading Assignment (the salmon colored handout).

Be sure to include and label all four standard parts 1,2,3,4 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** at the top of at least the first page. Neatness is appreciated!!!

Due: by the beginning of class on Monday, February 10th

Read:

Section 6.1, pages 370-378: Velocity and Net Change: Read the Chapter Preview on page 370 too! If you haven't been doing the Quick Checks within the readings, start now. Note that the answers to the Quick Checks are at the end of the exercises for that section. It is a good way to see if you have followed the page or two that you have just read.

Notes:

Although we have a lot more to do to understand how to integrate functions, we can still do a lot with the techniques we have so far. So in Chapter Six we take a break from learning techniques and look at applications of integration. In this first section we look at why we would want to integrate the absolute value of a function, as well as show how we can use integration to find out cell population or production costs (among a myriad of other things) at a future time.

Remember that your answers should include complete sentences for every question. Be sure to address all parts of each question.

Reading Questions for part (1):

a) Suppose the velocity of an object moving along a line is positive. Are the values of the object's position, displacement, and distance traveled equal? Explain. Be sure that you make the definitions of the three quantities clear in your explanation.

b) Suppose $Q(t)$ is the rate of change of the population of zebra mussels in Seneca Lake. What do you get when you integrate $Q(t)$ between times $t = a$ and $t = b$? Explain.

Remember parts 2-4 on the salmon handout! **Reread the directions for these parts to be sure that you are answering the questions.** If you have lost your salmon handout, there is a link on our website to the Homework Guidelines.