

### **Mathematical Analysis Reading for Thursday, June 3rd**

Continue with our study of the derivative by reading through to the bottom of p. 156.

### **Mathematical Analysis Problem Set 12 for Thursday, June 3rd**

*From Chapter 8*

We discussed Problem 5 in class. Write out answers to all four parts of the problem.

*From Chapter 9*

Problem 1. (For the proof in part (b), all Spivak is looking for is that you write down an equation for the tangent line to  $f$  at  $a$ , and the equation for  $f$  itself. You now have two functions of  $x$ . Set them equal and see what solutions there are.)

Problem 2. (For the proof in part (b), the same comment in the previous problem applies.)

Problem 3. (Remember what we did to prove this limit? It took us quite a while to find the right trick. Try multiplying numerator and denominator in your expression for the derivative by  $\sqrt{a+h} + \sqrt{a}$ .)

Problem 4.

*Drag Racer*

Do the drag racer problem on the following pages.

### **For In-Class Discussion on Thursday, June 3rd**

Chapter 9, Problem 20