Math 2250 HW #2
Due 1:25 PM Friday, August 26

Reading: Strogatz "Take It to the Limit" (http://opinionator.blogs.nytimes.com/2010/04/04/take-it-to-the-limit/), Hass §2.2,2.4-2.5.

Problems: Do the assignment "HW2" on WebWork. In addition, write up solutions to the following three problems and hand in your solutions in class on Friday.

1. Find the following limit, or explain why the limit doesn't exist:

$$\lim_{h \to 0} \frac{\sqrt{6h+1}-1}{h}.$$

2. Find the following limit, or explain why the limit doesn't exist:

$$\lim_{x \to 16} \frac{\sqrt{x}-4}{x-16}.$$

3. Determine each of the following limits, or explain why they don't exist.

   (a) $\displaystyle\lim_{x \to -2^{+}} 3(x+3)\frac{|x+2|}{x+2}$ 　　　　 (b) $\displaystyle\lim_{x \to -2^{-}} 3(x+3)\frac{|x+2|}{x+2}$