Math 141, Problem Set #5
(due **in class** Fri., 10/11/13)

Note: To get full credit for a non-routine problem, it is not enough to give the right answer; you must explain your reasoning.

Stewart, section 1.6, problems 2, 14, 20, 22, 58. (Note that for problems 14 through 22, you should permit answers like ∞ and $-\infty$ as limits, even though these would have been disallowed back in sections 1.3 through 1.5.) Also:

A. If we know $\lim_{x\to a} f(x) = -\infty$ and $\lim_{x\to a} g(x) = -\infty$, what if anything can we conclude about $\lim_{x\to a} f(x)g(x)$? Explain. (Epsilons and deltas are not required.)

B. If we know $\lim_{x\to a} f(x) = \infty$ and $\lim_{x\to a} g(x) = 0$, what if anything can we conclude about $\lim_{x\to a} f(x)g(x)$? Explain. (Epsilons and deltas are not required.)

Please don't forget to write down on your assignment **who you worked on the assignment with** (if nobody, then write "I worked alone"), and write down on your time-sheet **how many minutes you spent on each problem** (this doesn't need to be exact).