Homework 6

This homework is due by 6PM on Friday 2/18/11. You are encouraged to work on the problem sets as a group, but each student must hand in their own problem set.

1 Midterms

Problems 1 through 4 of Midterm 2 (you will do Midterm 1 in section with the TA as an example). The two midterms are linked on the Homework page.

2 Simplifying fractional expressions

Appendix B.5., questions 2, 4, 6, 8, 10, 20, 22, 24, 26, 30, 32, 40, 42, 46.

3 Rational functions

For each of the functions defined in the following problems, ignore the textbook question but instead (a) State whether the function is fully factored, and if not, factor it further (b) Determine the $x-$ and $y-$intercepts, (c) Determine the asymptotes and/or excluded points (d) Draw a signs table, (e) Determine the behavior of the function near infinity (i.e. say $f(x)$ goes to .... as x goes to $-\infty$ and $f(x)$ goes to .... as x goes to $+\infty$) and finally (f) *Sketch* the function given all of this information.

Textbook Questions: Section 4.7: 12, 14, 26, 30, 32, 42, 44