Math 1050-006 Homework 7 Assigned: 3/20/2013 Due: 3/27/2013

Please clearly identify which problems you are working on. Please staple all your solutions together and write your name and student id number clearly on the top of the first page. Show all work for full credit!!

Book Problems:

- 1) Rational Functions: 1-3 (give the implied domains as well), 4-7
- 2) Piecewise Defined Functions: 2, 4, 12

Additional Problems:

- 1) Does the Rational function $r(x) = \frac{(x+3)(x-2)}{(x-2)}$ exactly equal the polynomial p(x) = x+3? Why or why not?
- 2) Are all polynomials functions also rational functions? If yes why, if not give a counter example. Are all rational functions also polynomial functions? If yes why, if not give a counter example.