How to study for the final exam.

1. Redo all of the test problems.

2. Redo all of the quiz problems.

3. For the problems you had difficulty with on the tests and quizzes, reread the appropriate sections in the book and redo the homework problems.

Chapter 1

- Section 1.2 — Know the rules of exponents.

- Section 1.3 — Be able to multiply, as well as factor, polynomials in one variable.

- Section 1.4 — Be able to add, subtract, multiply, or divide fractions and fractional expressions, and then simplify your answer.

Chapter 2

- Section 2.1 — Solve equations by adding, subtracting, multiplying, or dividing each side of the equation by the same quantity.

- Section 2.2 — Convert word problems into equations and solve.

- Section 2.3 — Solve quadratic equations by factoring, by using the quadratic formula, or by completing the square. You can choose which method to use.

- Section 2.5 — Solve equations involving absolute values, square roots, etc.

Chapter 3

- Section 3.1 — Understand the basics of the rectangular coordinate system, including finding coordinates for points on a graph, sketching points when coordinates are given, and finding the distance between two points.

- Section 3.2 — Be able to sketch graphs of equations by making a table of values and connecting the dots, or any other technique learned later in the course. You should be able to find the $x$- and $y$-intercepts for equations. You should know the standard equation for a circle and be able to draw its graph. You should also be able to complete the square to rewrite an equation for a circle in standard form.
• Section 3.3 — This is a very important section! Know all about lines (equations, slopes, parallel, perpendicular, word problems, graphing, etc.) You should reread this section and redo all of the homework problems.

• Section 3.4 — Be able to correctly use functional notation, find domains and ranges of functions, and express one quantity as a function of another quantity (as in the word problems.)

• Section 3.5 — Be able to sketch graphs of functions and understand basic shifting.

• Section 3.6 — Use any method you wish to find the vertex of a parabola. Graph the parabola and find the maximum or minimum value (as in the word problems.)

• Section 3.7 — See review sheet for test #3.

• Section 3.8 — See review sheet for test #3.

Chapter 4

• Section 4.1 — See review sheet for test #3.

Chapter 5

• Section 5.1 — See review sheet for test #3.

• Section 5.2 — See review sheet for test #3.

• Section 5.3 — See review sheet for test #3.

• Section 5.4 — See review sheet for test #3.

• Section 5.5 — See review sheet for test #3.

Chapter 9

• Section 9.1 — Be able to solve a system of equations. Be able to translate a word problem into a system of equations and then solve. Be able to find all points of intersection for the graphs of two equations.

• Section 9.2 — Be able to solve a system of equations. Be able to translate a word problem into a system of equations and then solve. Be able to find all points of intersection for the graphs of two equations.