Name: _____

Section P.1 - Real Numbers

Objective(s)

Self-Assessment **Before:** **During:** **After:**

Vocabulary

- Real number
- Rational number
- Irrational number
- Bounded interval
- Unbounded interval

Knowledge

- Real number system
- Bounded vs. unbounded intervals of real numbers
- Interval vs. inequality notation
- Properties of exponents

Skills

- Convert between set and interval notation
- Simplify expressions involving powers (including scientific notation)

Section P.2 - Cartesian Coordinate System

Objective(s)

Self-Assessment **Before:** **During:** **After:**

Vocabulary

- Absolute value

Knowledge

- Distance & midpoint formulas
- Standard form equation of a circle

Skills

- Given two points: find the distance between them; find their midpoint
- Find the standard form equation of a circle
- Use the distance and/or midpoint formulas in geometric situations

Assignment

Section P.3 - Linear Equations & Inequalities

Objective(s)

Self-Assessment **Before:** **During:** **After:**

Vocabulary

- Equation
- Linear equation in x
- Equivalent
- Linear inequality in x
- Solution set

Skills

- Solve linear equations and inequalities in one variable (including those involving fractions)
- Solve a double inequality

Section P.4 - Lines in the Plane

Objective(s)

Self-Assessment **Before:** **During:** **After:**

Vocabulary

- Slope
- *y*-intercept
- Linear equation in *x* & *y*
- Graph
- *x*-intercept

Knowledge

- Slope formula
- Forms of equations of lines: point-slope, slope-intercept, general form
- Parallel and perpendicular lines
- Real world applications of linear equations

Skills

- Find the slope of a line
- Find the equation of a line given (a) one point and the slope; (b) the slope and *y*-intercept; and (c) two points
- Graph linear equations in two variables with and without a graphing utility
- Find the equation of a line parallel or perpendicular to a given line through a given point
- Set up and solve application problems that can be modeled by linear equations
- Write a linear equation based on data given in a table and use it to make predictions

Assignment

Section P.5 - Solving Equations Graphically, Numerically & Algebraically

Objective(s)

Self-Assessment **Before:** **During:** **After:**

Vocabulary

- *x*-intercept
- Zero
- Quadratic equation in *x*

Knowledge

- Zero Factor Property
- Methods of solving a quadratic equation algebraically (4)

Skills

- Solve equations involving quadratic expressions algebraically
- Solve equations graphically by finding *x*-intercepts or point(s) of intersection
- Model with quadratic functions

Assignment

Section P.6 - Complex Numbers

Objective

Self-Assessment **Before:** **During:** **After:**

Vocabulary

- Imaginary unit
- Complex number
- Complex conjugate

Skills

- Perform arithmetic operations on complex numbers
- Solve quadratic equations with complex zeros

Section P.7 - Solving Inequalities Algebraically & Graphically

Objective

Self-Assessment **Before:** **During:** **After:**

Skills

- Solve absolute value and quadratic inequalities algebraically
- Solve inequalities involving absolute value and quadratic polynomials graphically
- Model with quadratic inequalities

Assignment(s)
