Exam 1 Outline
College Algebra

To create an outline, you should look through class notes and homework to find the types of problems covered from each section. I recommend that you find 2 problems of each type (usually from our textbook) and solve them. If you have trouble, get help before the day before the exam.

1.1 Linear Equations
- Linear equations with no solutions
- Linear equations with one solution
- Linear equations with infinitely many solutions
- Word problems involving linear equations

1.2 Mathematical Modeling
- Figure out what a problem is asking for
- Convert a statement to an algebraic equation
- Solve & ‘reality check’ equations

1.3 Quadratic Equations
- Solve quadratic equations by factoring
- Construct and use quadratic models to solve applications problems

1.4 The Quadratic Formula
- Factor polynomials into parentheses
- Use the quadratic formula for factoring and finding zeros
- Find all solutions to a quadratic equation
- Find the zeros of a quadratic function

1.5 Other Types of Equations
- Rational Equations
- Equations with fractional powers
- Equations with radicals
- Absolute value equations

2.1 Graphs of Equations
- Plotting points
- Finding the distance between two points
- Finding the midpoint between two points
- X & Y-Intercepts
- Circle equations

2.2 Lines in the Plane
- Find the line passing through 2 points
- Sketch lines
- point-slope and slope-intercept forms of a line
- parallel and perpendicular lines

2.3 Linear Modeling and Direct Variation
- Word problems involving lines
- Interpret problems with direct variation
- Word problems using direct variation