Exam 1 Topics

Disclaimer: This list may or may not be complete. I may have unintentionally forgot something. Please review your notes and the problems assigned for a complete idea of what to expect. Also note that some definitions come up in other sections. You should be able to apply definitions outside of the section in which they are listed when appropriate.

<u>2.1: Equations of Lines</u>

- Definitions: Interpolation, Extrapolation

- Slope-intercept form

- Point-slope form

- Parallel and perpendicular lines

- Finding equations of lines

- Interpreting results from a model

- Understanding the limitations of using a model

<u>2.2: Linear Equations</u>

- Definitions: contradiction, identity, conditional

- Solving linear equations

- Identifying linear equations as a contradiction, an identity, or conditional

- Solving word problems modeled by linear equations

<u>2.4: More Modeling with Functions</u>

- Definitions: directly proportional (proportional or varies directly), constant of proportionality, piecewise function, continuous at a point, continuous function

- Solving more linear word problems

- Graphing piecewise functions

- Evaluating piecewise functions

- Identifying functions as continuous or not

- Identifying a point of discontinuity

<u>3.1: Quadratic Functions and Models</u>

- Definitions: quadratic function, vertex form, vertex,

- Graphing quadratics

- Solving Max/Min problems

3.2: Quadratic Equations and Problem Solving

- Finding real solutions to quadratic equations

- Solving problems that are modeled by quadratic equations

3.3: Complex Numbers

- Definitions: Complex number, imaginary unit, real part, imaginary part, conjugate

- Performing operations with complex numbers

- Computing powers of i

3.5: Graph Transformations

- Identify transformations in function notation

- Know the mother functions

- Be able to graph functions using transformations of the mother functions