Mid Term Exam Review Checklist
Ch. 1 - 5

Use your past quizzes, tests, and homework to ensure you can perform each of the following skills below. Be sure you know and can recognize when one method is better used than another!!! For example, be able to recognize when it is best to solve a system using elimination, substitution, graphing... Recognizing which is 'best' for a given problem saves you time, effort, and agony better spent on more difficult problems.

Using this checklist, it is recommended that you try out problems that pertain to each skill. Make mini-exams out of questions, flash cards, notes, or just do work...

To master this exam, you should be able to:

Intro unit:
- Solve equations using:
    - Single and multi-step
    - Variables on both sides of the equation
    - No solution or all real number solutions
    - Absolute value
        - Identify extraneous solutions
    - Distributive property
    - Multi-step with fractions and decimals
    - Variables with no numbers present
- Solving equations by graphing (5.5)
- Dimensional Analysis
- Arithmetic sequences
    - Writing and interpreting using recursive and explicit means
- Solve Inequalities
    - Single and multi-step inequalities
    - Compound inequalities
    - Absolute value inequalities
- Graph inequalities on a number line
- Solve word problems involving inequalities and absolute value

Chapter 3/4:
- Determine if a relationship is a function
    - Using a graph, table, or set of ordered pairs
    - Find the domain and range
- Understand and use function notation ($f(x)$)
- Domain and Range
- Composite functions
- Perform transformations on a graph and on a fixed point (x,y)
- Rotations, reflections, dilations, translations
- Graph linear equations in standard form by finding x and y intercepts
- Calculating, representing, and finding slope of a line, graph, table, or equation

- Graph linear equations in slope intercept form
- Converting between standard form and slope-intercept form, and vice versa
- Find the equation of a line if given certain information
    - A point and a slope
    - A slope and y intercept
    - A point and a point
- Using point slope formula
- Write equations of parallel and perpendicular lines
- Direct and inverse variation
- Graphing absolute value functions
- Graphing and/or writing equations for piecewise functions

Mini unit on measures of central tendency:
- Create a scatterplot
    - Approximating a best fit line
    - Interpreting linear regression
    - Interpreting correlation coefficient, residuals, causation
- Interpret a list of data
    - With standard deviation
    - Approximate bell curve percentage intervals
    - Mean Absolute Deviation

Chapter 5:
- Solving linear systems of equations by graphing
- Solving linear systems of equations by substitution
- Solving linear systems of equations by elimination/combination
- Solving special linear systems
    - Infinite and no solution
- Graphing inequalities on a coordinate grid
- Solve and graph systems of inequalities
- Interpreting a linear programming model
- Solve word problems involving systems
    - Including boat problems, stock/bond, mixture, etc...