MTH 104 – Test #2

(Wednesday March 14th → 8:30 – 9:20 am)
Expect to see questions like:

- Solve a formula for a variable (factoring needed)
  - Class Practice on Solving a Formula for a Variable (factoring needed)
- Solve applied problems involving rate, time, and distance
  - Class Practice on Distance #1 – #5
  - Page 101: 1, 3, 5, 7, 13
- Solve applied problems involving filling rates
  - Class Practice on Filling Rates
  - Page 102: 11
- Solve absolute value equations and inequalities
  - Class Practice on Absolute Equations and Inequalities
  - Class Practice on Absolute Value
  - Page 126: 25, 33, 37, 49, 53
- Graph linear equations by point plotting or by finding and using the x- and y-intercepts. Also be able to graph horizontal and vertical lines. Also be able to graph linear equations by using a known point and the slope, where you show the rise and run on the graph
  - Class Practice on Graphing #1 – #9
  - Page 144: 33, 35, 37
  - Page 169: 11, 13, 19, 23, 39, 41, 43, 45
  - Page 179: 43, 45
- Use function notation to evaluate a function for a given value of the independent variable
  - Page 158: 41 – 49
- Identify the dependent and the independent variables in a function
  - See definition on page 149 (top of page)
- Determine the slope of a line, given two points on the line, given the equation of the line, or given the graph of the line
  - Class Practice on Slope #1
  - Class Practice on Slope Exercises
  - Class Practice on Additional Slope Exercises
  - Page: 178: 13 – 21, 33, 35, 37, 39
- Determine whether two lines are parallel, perpendicular, or neither
  - Page 190: 21 – 27
- Determine the equation of a line, given two points that the line passes through
  - Page 190: 11, 13
- Determine the equation of a line, given a point on the line and the slope of the line
  - Page 190: 5, 7
• Determine the equation of a line that passes through a given point and is parallel to a given line or determine the equation of a line that is passes through a given point and is perpendicular to a given line
  o Class Practice on Point-Slope Form #1 – #4
  o Page 190: 33 – 39, 43
• Graph a linear inequality in two variables
  o Class Practice on Graphing Inequalities in Two Variables
  o Page 205: 13, 17, 19, 27
• Graph a 2 by 2 Linear System and determine the solution from the graph or solve a 2 by 2 system using either the method of substitution or the method of elimination (addition)
  o Class Practice on Systems of Equations #1 – #6
  o Page 225: 25, 31, 33, 37, 39, 41, 53, 55, 61, 65
• Be able to identify Consistent, Inconsistent, and Dependent systems
  o See page 218 (bottom of page)
• Solve a 3 by 3 linear system
  o Class Practice on Solving a System of Three Linear Equations in 3 Variables (3 by 3 Linear Systems)
  o Class Practice on Systems of Equations #7
  o Page 233: 17, 18
• Solve a mixture problem using an algebraic set-up
  o Class Practice on Percents
  o Class Practice on Mixture Problem
  o Page 244: 17, 18