

Required for Test 1

Chapter 1: (1.1, 1.3, 1.4)

- Find x and y intercepts of a line
x intercept: $(x, 0)$ y intercept: $(0, y)$
- Sketch the graph of a line
 1. create a table of 2 or more values
 2. use the y-intercept and slope to sketch the graph
- Find the slope of a line from the equation and/or using the slope formula
 1. For the line $y=mx+b$, the slope is the value m
 2. Slope formula: $m = \frac{y_2 - y_1}{x_2 - x_1}$
- Parallel lines have the same slope
- Write the equation of a line given two points
The point-slope formula: $y - y_1 = m(x - x_1)$
- Word Problems: writing the model (equation) and answering questions using the equation.

Chapter 2: (2.1, 2.2, 2.3, 2.4)

Section 2.1

- Write the matrix that corresponds to a given system of equations
- Write the system of equations that corresponds to a given matrix.
- Perform row operations

Section 2.2

- Perform pivot operation
- Solve a system of equations using Gaussian Elimination (the matrix method)
- Interpret and write the solution to a system – inconsistent, consistent, unique solution, infinitely many solutions
- Find one or more particular solutions from the general solution.

Section 2.3

- Calculate the sum of two matrices (if defined)
- Calculate scalar multiplication
- Calculate the product of two matrices (if defined)

Section 2.4

- Calculate the determinant of a 2x2 matrix
- Use the determinant to find the inverse of a 2x2 matrix
- Use the inverse to solve a system of equations