

Concepts to know

Chapter 1

- Draw an appropriate set of labeled axes for a given problem and graph lines.
- Find the slope of a line given two points on the line.
- Recognize positive, negative, zero and undefined slopes.
- Decide on dependent and independent variables.

- Understand parallel and perpendicular lines.
- Use the point-slope form of a line to find the equation of a line.
- Find the intercepts of a line.
- Use the models for
 - Cost, Revenue and Profit
 - Supply and Demand
 - Depreciation

- Find the intersection point for two lines, including the Break-Even point and the Equilibrium point.
- Use the method of least squares (on your calculator) to find the regression line for a set of data
- Use the regression line to estimate values for the variables.
- Graph a scatter plot with a regression line.

Chapter 2 – Linear Systems

- Set up a system of linear equations from a word problem.
- Solve a system of linear equations using Gauss-Jordan.
- Recognize when an augmented matrix is in row-reduced echelon form.
- Interpret the resulting equations when an augmented matrix is in row-reduced form.

Chapter 2 - Matrices

- Represent data in a labeled matrix.
- Add, transpose and multiply by a scalar.
- Multiply two matrices.
- Interpret the results of matrix multiplication.
- Solve matrix equations using matrix inverses.