Unit 4 – Systems of Linear Inequalities

Relations and Functions	General Outcome: Develop algebraic and graphical reasoning through the study of relations.
Specific Outcomes *It is expected that students will:*	**Achievement Indicators** *The following set of indicators **may** be used to determine whether students have met the corresponding specific outcome.*
E1. Model and solve problems that involve systems of linear inequalities in two variables. [CN, PS, T, V]	1.1 Model a problem, using a system of linear inequalities in two variables. 1.2 Graph the boundary line between two half planes for each inequality in a system of linear inequalities, and justify the choice of solid or broken lines. 1.3 Determine and explain the solution region that satisfies a linear inequality, using a test point when given a boundary line. 1.4 Determine, graphically, the solution region for a system of linear inequalities, and verify the solution. 1.5 Explain, using examples, the significance of the shaded region in the graphical solution of a system of linear inequalities. 1.6 Solve an optimization problem, using linear programming.

Class	Topic	Assignment
	Set and Graphing Review	
	6.1 Graphing Linear Inequalities in Two Variables	Pg 303 # 1,2, 4-7, 9-14
	6.2 Systems of linear Inequalities	Pg 307 # 1,2 Pg 318 # 4, 7
	6.3 Graphing Systems of Linear Inqualities	Pg 318 # 6,8, 10, 12
	Checkpoint	Pg 323 #4,6,7
	6.4 Optimization Problems I: Create Model	Pg 331 # 6,7,9 graph and solve
	6.5 Optimization Problems II: Explore Solutions	Pg 334 #1-3
	Review	Pg 347 # 1-4, Pg 349 #1-11
	Chapter 6 test	

Vocabulary:

Linear equation	Solution region	Included
Linear inequality	Discrete	Not included
Solution	System	Optimization problem
Solution set	System of linear inequalities	Constraint
Continuous	X intercepts	Objective function
Discrete	Y intercept	Feasible region
Domain	Slope	Optimal solution
Range	Boundary	Restrictions

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https://www.khanacademy.org/math/algebra/two-variable-linear-inequalities/graphing-inequalities/v/graphing-inequalities

http://www.mathsisfun.com/algebra/graphing-linear-inequalities.html