**Foundations of Math 11: Chapter 6 - Systems of Linear Inequalities**

By the end of this chapter, you need to be able to:

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| **Learning Outcome** | **Not Yet Mastered** | **Partially Mastered** | **Fully Mastered** |
| Graph the boundary line in a system of linear inequalities and justify the choice of dotted, solid, or dashed lines |  |  |  |
| Model a problem using a system of linear inequalities (e.g., define variables, restrictions, & constraints) |  |  |  |
| Determine the solution region that satisfies a linear inequality, using a test point when given a boundary line (e.g., Is it above or below? Is it shaded with solid lines or dotted?) |  |  |  |
| Graph the solution region for a system of linear inequalities (e.g., constraints) and verify the solution  |  |  |  |
| Explain, using examples, the significance of the shaded region in the graphical solution of a system of linear inequalities |  |  |  |
| Solve an optimization problem |  |  |  |

Chapter 6 Assignment organizer: Keep track of the questions you get stuck on/get help with. This will help you target skills you need help or more practice with. Notice some questions practice multiple skills.

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| **Assignment from section** | **Graphing Linear Inequalities** | **Determining the linear inequalities from a graph** | **Modeling a problem using linear inequalites** | **Optimization problems** |
| 6.1 | p. 303 #5ace, 6cd | p. 303 #4 |  |  |
| 6.2 | p. 307 #2 |  |  |  |
| 6.3 |  |  | Handout 6.3 |  |
| 6.4 |  |  | p. 330 #3, 5 | Handout 6.4-6.5 (do Ex. 1 & 2; skip steps 4 & 6)p. 330 #3, 5 (skip objective function) |
| 6.5 |  |  |  | p. 330 #3, 5 (now do objective function)p. 344 #9, 11, 12, 13 |
| 6.6 |  |  |  | p. 349 # 1, 3, 4, 8, 9, 10 |