

## Chapter 3: The Nature of Graphs

### Chapter Objectives

Graph functions, relations, inverses and inequalities  
Analyze families of graphs  
Investigate symmetry, continuity, end behavior and transformations of graphs  
Find asymptotes and extrema of functions  
Solve problems involving direct, inverse and joint variation

Assignment	Section	Homework
1	3.1 Symmetry and Coordinate Graphs	Worksheet 3.1 (front and back!)
2	3.2 Families of Graphs	pg. 142 #1, 2, 5, 13-17, 28-30, 36
3	3.2 continued	Worksheet 3.2
4	3.3 Graphs of Non-Linear Inequalities	pg. 149 #5-11, 21, 23, 26, 34, 35
5	3.4 Inverse Functions and Relations	pg. 155 #1, 20-23, 25, 28-30, 39
6	Review 3.1-3.4	Finish Review Packet
7	3.4 Word Problems	pg. 157 #14, 41, 42
8	3.5 Continuity	Worksheet 3.5(a)
9	3.5 End Behavior	Worksheet 3.5(b)
10	3.6 Critical Points and Points of Inflection	pg. 177 #14- 32 even
11	3.7 Holes and Asymptotes	Worksheet 3.7(a)
12	3.7 Graphing Rational Functions	Worksheet 3.7(b)
13	3.8 Direct, Inverse and Joint Variation	pg. 193 #1, 5-8, 9-11
14	Review 3.5-3.8	Finish Review Packet
15	Chapter 3 Review	Finish Chapter Review Packet
16	Optional Homework	Chapter 3 Targets