## Unit 1 (Functions and Their Graphs)

| Main Topic/Book  | Objectives   | Assignments  |
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| Section  |  |  |
| 1.4-1.5 Functions  | <ul> <li>Find domain and range.</li> <li>Determine whether a relation is a function.</li> <li>Simplify a difference quotient.</li> </ul>   | #1 p.49 -50 #'s 14-24<br>(even), 58-70 (even),<br>81-84<br>p. 61-62 #'s 9-14 |
| 1.6-1.7 Library of<br>Parent Functions<br>and<br>Transformations | <ul> <li>Identify the parent function of<br/>a given function.</li> <li>Describe transformations of a<br/>function.</li> <li>Use an equation of a function<br/>and its parent graph to sketch<br/>the function.</li> </ul> | #2 p. 79-81 #'s 8-40<br>(every other even)                                   |
| 1.6 Piecewise<br>Defined and<br>Greatest Integer<br>Functions    | <ul> <li>Evaluate Piecewise and<br/>Greatest Integer by hand.</li> <li>Graph both functions using<br/>graphing calculator and sketch.</li> </ul>   | #3 p. 71-72 #'s 33-36,<br>38-50 (even)<br>63-65                              |
| 1.8 Compositions<br>of Functions                                 | <ul> <li>Find the composition of 2 or<br/>more functions.</li> <li>Write a given function as a<br/>composition of two or more<br/>functions.</li> </ul>  | #4 p. 90 #'s 35-42,<br>47-54   |
| 1.9 Inverse<br>Functions   | <ul> <li>Determine if a function is one-to-one.</li> <li>Graph the inverse of a function.</li> <li>Algebraically find an inverse function.</li> <li>Verify if two functions are inverses of each other.</li> </ul>         | #5 p. 99-100 #'s 19-<br>24, 39-49  |
| Review   |  |  |
| Test   |  |  |