HONORS PRECALCULUS
UNIT 1: FUNCTIONS

| DAY | LESSON | ASSIGNMENT |
| :---: | :---: | :---: |
| 1 | - Introductions <br> - Problem Set - Preview of Concepts Learned | Classwork: Function Grid Homework: Finish Problem Set This Will Be Graded |
| $\begin{gathered} 2 \\ (1-1) \end{gathered}$ | - Determine whether relations between two variables are functions <br> - Use function notation and evaluate functions <br> - Find the domain and range of functions <br> - Use functions to model and solve real world problems. | Optional: p. 82-87: 51, 61, 65, 81, 85, 87, 93-95 <br> Homework: p. 82-87: 2, 5, 9, 12, 19, 20,34,35, 43, 54, 55, 64, 70, 80,84, 88, 89, 94, 95, 97, 101, 103 |
| $\begin{gathered} 3 \\ (1-2) \end{gathered}$ | - Find the domain and range of a function <br> - Use the vertical line test for functions <br> - Determine intervals where a function is increasing or decreasing <br> - Determine the relative maximum and relative minimum of functions <br> - Identify and graph step functions and other piecewise functions <br> - Determine whether a function is even or odd | Classwork: Review Problem Set <br> Homework: p. 96-99: 1, 3, 9, 11, 16, <br> 22, 27, 29, 34, 36, 43, 46, 49, 66, 71, <br> 80, 87, 91-94, 113 <br> Piecewise Function |
| $\begin{gathered} 4 \\ (1-3) \end{gathered}$ | - Quiz 1: Problem Set Topics <br> - To recognize the graphs of common functions <br> - To use vertical and horizontal shifts to sketch graphs <br> - To use non-rigid transformations to sketch graphs | Classwork: Mortimer Worksheet <br> Homework: p. 106-108: 13,39-44, 45, <br> 55, 59, 65, 73, 77, 78, 80-83 <br> Function Worksheet Graded |
| $\begin{gathered} 5 \\ (1-4) \end{gathered}$ | - Quiz 2: 1-1 through 1-3 <br> - To add, subtract, multiply and divide functions <br> - To find the domain of a composition of functions <br> - To use combinations of functions to model and solve real world problems | Optional: p. 116-119: 2-16 even, 23, 37, 39, 49, 51, 53, 58-64 even, 79 <br> Homework: Anatomy of Functions <br> p. 116-119: 45-48, 52-56 even, 65-70, <br> $73,76,77,81,83,86$ |
| $\begin{gathered} 6 \\ (1-5) \end{gathered}$ | - To find the inverse of a function algebraically <br> - To use the graphs of functions to determine whether have inverses | Classwork: <br> Homework: p. 127-129: 79-83 odd, 89, 90, 92, 93 <br> Composition \& Inverses Worksheet |
| 7 | - Quiz 3: 1-4 through 1-5 <br> - Applications using Word Problems 1 | Classwork: p. 131: 1-79 odd <br> Homework: p. 134: 1-21 <br> Word Problems Wksht |
| 8 | - To clear up all misconceptions concerning the learning goals in unit 1 | Classwork: Review Sheet |
| 9 | - Unit 1 Test | Homework: $\frac{\text { Problem Set \# 1 }}{\text { Read section 2-1 }}$ |

