

# **Pre Calculus Unit 7 Outline – Power, Polynomial, and Rational Functions**

## **Lesson 1: Power Functions and Modeling; Polynomial Functions of Higher Degree; The Intermediate Value Theorem**

HW: Worksheet  
p. 190 (17,21,35,39,43,51)  
p. 202 (1,5,9,17,21,25,29,33,37,41)

## **Lesson 2: Zeros of Polynomial Functions, Factor and Remainder Theorems, Rational Root Theorem, Upper and Lower Bounds, Descartes' Rule**

HW: p. 190 (19, 37,41,55)  
p. 202 (3,7,11,19,23,27,31,35,39)  
p. 216 (9,13,17,21,25,29,37,41,45,53,57,61)

## **Lesson 3: Absolute Value Equations and Inequalities; Polynomial Inequalities**

HW: p. 216 (11,15,19,23,27,39,43,47,55,59)  
p. 59 (1-7 odd); p. 265 (1-19 Odd w/o calculator)

## **Lesson 4: Analyzing Rational Functions; Behavior Near Vertical Asymptotes**

HW: p. 59 (2-8 even); p. 265 (2-18 even w/o calculator)  
p. 246 (1,5,9,13,17,21,25,29)

## **Lesson 5: Graphing Rational Functions**

HW: p. 246 (3,7,11,15,19,23,27,39,43,47,51,55,59,63,67)

## **Lesson 6: Limits, then Review**

p. 270 (3,4,17,18, 25-38, 47-82, 93-96)

## **Lesson 7: TEST**