

## Math 41 **Precalculus: Real Math Real People 7<sup>th</sup> edition**

*The exercises that follow are suggested and may or may not be identical to those assigned in class on a day by day basis. However, they still are a solid representation of the topics, ideas, procedures, etc. covered in the course.*

### Chapter 1 Functions and their Graphs

Section 1: Lines in the Plane	#17,19,21,23,25,27,29,31,33,35,39, 41,51,53,55,67,73,75,95
Section 2: Functions	#7, 15, 17, 19, 21,23,25,29,31-45 odd, 53, 57-65 odd,
Section 3: Graphs of Functions	#7-10 all,17-25 odd, 35-39 odd, 55,59,61,63,69,71,93,99-104 all
Section 4: Transformations of Functions	#11,15,19,51,57,59,61,75
Section 5: Combinations of Functions	#7,13,19,25,41,45,47,61,67,69,71,73,75,82,85
Section 6: Inverse Functions	#15-18 all,19,21,25,27,29,39-43 odd, 57,61,65,71,75,77,81,91,93-99 odd
Section 7: Linear Models	#11,21,27

### Chapter 2 Polynomial and Rational Functions

Section 1: Quadratic Functions	#21,33,35,37,39,49,51,55,63,64,65,75,81
Section 2: Polynomial Functions of Higher Degree	#9-16 all,19-25 odd, 39,37,41,55,59,65-71 75,85,89,95,109
Section 3: Real Zeros of Polynomial Functions	#11,19,23,37,41,43,47,53,59,61,63,69,91,95
Section 4: Complex Numbers ( <i>optional</i> )	#11,21,31,33,53,73,77
Section 5: Fundamental Thm. of Algebra ( <i>optional</i> )	#17,29,33,45,57,59
Section 6: Rational Functions and Asymptotes	#11-16 all,21,25
Section 7: Graphs of Rational Functions	#27,33,65,67,89

## Chapter 3 Exponential and Logarithmic Functions

Section 1: Exponential Functions	#17-20 all, 21,25,29,33-36 all, 45-51 odd,53,57,61,65,79
Section 2: Logarithmic Functions	#1-27 odd, 29,37,39,45,47,51-54 all, 61-67 all, 69-75 all,114
Section 3: Properties of Logarithmic	#5-19 odd,47-63 odd, 69-83 odd
Section 4: Solving Exponential and Logarithmic Equations	#7-13 odd,47-53 odd,55-67 odd, 77-79,93-111 odd,14
Section 5: Exponential and Logarithmic Models	#7-12 all,25,35,45

## Chapter 4 Trigonometric Functions

Section 1: Radian and Angle Measure	#13-27 odd,43,45,47,51,53,55,61,83,85,93,97
Section 2: The Unit Circle	#9-51 odd
Section 3: Right Triangle Trigonometry	#7-57 odd, 67-75 odd, 79
Section 4: Trigonometry Functions of Any Angle	#11-33 odd, 39-57 odd, 67- 77 all, 79-89 all, 103-108 all
Section 5: Graphs of Sine and Cosine Functions	#9,10,11,13,21,25,43,49,51,81,83
Section 6: Graphs of Other Trigonometric function	#9-17 odd
Section 7: Inverse Trigonometric Functions	#5-13 all, 19-31 odd, 45-51 odd, 53-63 odd
Section 8: Applications	#19,25,27,39

## Chapter 5 Algebraic Trigonometry

Section 1: Using Trigonometric Identities	#7-19 odd, 21-32 all, 33-44 all, 45-70 all
Section 2: Verifying Trigonometric Identities	#11-19 odd, 41-59 odd
Section 3: Solving Trigonometric Equations	#1-55 odd, 61-68 all, 73-85 odd
Section 4: Sum and Difference Formulas	#43-49 odd, 69-75 odd
Section 5: Multiple Angle and Power Reducing Formulas	#9,11,15,49,69,71