

Math 143
Exam 2 Review Sheet

Section 6.4 Values of the Trigonometric Functions

- Reference Angles (definition, and the ability to find one for any angle)
- Positivity/Negativity of the 6 basic trigonometric functions in all four quadrants
- Memorize the key values of the 6 basic trigonometric functions in the first quadrant and on the coordinate axes.
- Computing values of trigonometric functions in any quadrant using reference angles and appropriate signs.
- Computing using inverse trigonometric functions, and solving basic trigonometric equations.

Section 3.5 Graphs of Functions

- Even and Odd functions (their symmetry properties, and testing to see if a given function is even, odd, or neither)
- Understanding and interpreting shifts of functions (the 6 basic shifts and their impact on the graph of a function)
- Using shifts find the location of a shifted point or to draw a shifted graph.

Section 6.5 Trigonometric Graphs

- Understanding the features of sine and cosine graphs (amplitude, period, phase shift, midline, max, and min)
- Using shift constants to find and interpret the features of sine and cosine graphs
- Graphing sine and cosine graphs with multiple shifts
- Finding the equation for a sine or cosine function from its graph
- Finding a sine or cosine graph to fit data from a physical phenomenon

Section 6.6 Additional Trigonometric Graphs

- Understanding the features of tangent, cotangent, secant, and cosecant graphs (asymptotes, zeroes, period, phase shift, midline)
- Graphing tangent, cotangent, secant, and cosecant graphs with multiple shifts
- The effect of an absolute value sign on the graph of a trigonometric function

Section 6.7 Applied Problems

- Solving Triangles
- Angles of elevation and declination
- Navigation using bearings
- Solving trigonometric application problems

Practice Problems:

Chapter 3 Review p. 241 # 54, p. 245 # 2

Chapter 6 Review pp. 492-495 # 27, 28, 30, 31, 35, 38, 43, 44, 46, 50, 53, 55, 58, 59, 62, 64, 67, 73, 79