

Math 120 Topics

Chapter 6: Trigonometric Functions of Angles

- Angle measure - §6.1
 - Radians
 - Length of an arc and area of a sector
- Circular motion - §6.1
 - Linear speed and angular speed
- Trigonometric ratios - §6.2
 - Special values of trig. ratios
- Solving a right triangle - §6.2
 - Finding lengths of sides
 - Finding measures of angles
- Extending trig. ratios to all angles - §6.3
 - Reference Angles
- The Law of Sines (ASA, SSA) - §6.4
- The Law of Cosines (SSA, SSS)- §6.5

Chapter 5: Trig. Functions of Real Numbers

- The unit circle - §5.1
 - Terminal points
 - Reference numbers
- Trigonometric functions - §5.2
 - Similar to §6.3
- Domain & range of the trig. functions - §5.2
- Even and odd properties of trig. functions - §5.2
- Fundamental identities of trig. functions - §5.2
- Relating trig. functions to each other - §5.2
- Graphs of trigonometric functions - §5.3 & §5.4
 - Periodicity
 - Transformations of sine and cosine
 - * Amplitude, Mean, Period, Phase Shift
- Modeling Harmonic Motion - §5.5
 - We did **not** cover damped harmonic motion

Chapter 7: Analytic Trigonometry

- Simplifying trigonometric expressions - §7.1
- Proving trigonometric identities - §7.1
- Addition and subtraction formulas - §7.2
- Double-angle and half-angle formulas - §7.3
 - We did **not** cover Product-Sum formulas
- Inverse trigonometric functions - §7.4
 - Domain and range of inverse trig. functions
- Solving trigonometric equations - §7.5

Chapter 8: Polar Coordinates and Vectors

- Polar Coordinates - §8.1
 - Plotting points in polar coordinates
 - Converting between polar and rectangular coordinates
 - Polar equations
- Graphs of polar equations - §8.2
- Vectors - §8.3
 - Algebraic operations with vectors
 - Component Form
 - Magnitude & direction of a vector
 - Modeling velocity and force
- The dot product - §8.5
- Finding the angle between two vectors - §8.5

Chapter 10: Analytic Geometry

- Parametric equations - §10.7
 - Sketching plane curves
 - Eliminating the parameter

Here are **some** good review problems from the end of the chapters.

- Ch. 6 Test (pgs. 520-5): 1-17
- Ch. 5 Test (pg. 458): 1-10, 12
- Ch. 7 Test (pg. 574): 1, 3, 4, 6-11
- Ch. 8 Test (pg. 629): 1, 2, 6-10a
- Ch. 10 Test (pg. 814): 15

Make sure to review the assigned homework problems and old quizzes & exams.