

COURSE OUTLINE MATH 115 TSCHRITTER

Text: Precalculus , Fifth Edition by Larson & Hostetler

Chapter P - Prerequisites

- # 1 p4 rational expressions
- # 2 p5 solving equations
- # 3 p6 solving inequalities

Chapter 1 - Functions & Graphs

- # 4 1.3 functions
- # 5 1.4 analyzing graphs
- # 6 1.5 transformations of graphs
- Take home test # 1
- # 7 1.6 combinations of functions
- # 8 1.7 inverse functions
- Tutorial , Test # 1 Lessons 1-8

Chapter 2 - Polynomial & Rational Functions

- # 9 2.1 quadratic functions
- # 10 2.2 polynomial functions
- # 11 2.3 synthetic division
- # 12 2.5 finding zeros
- # 13 2.6 rational functions
- Take home test # 2

Chapter 3 - Exponential & Logarithmic Functions

- # 14 3.1 exponential fns & their graphs
- # 15 3.2 log fns & their graphs
- # 16 3.3 log properties
- # 17 3.4 exp & log equations
- # 18 3.5 exp & log models
- Tutorial , test # 2 lessons 9-18

Chapter 4 - Trigonometry

- # 19 4.1 radians & degree measure
- # 20 4.3 right triangle trig
- # 21 4.2 & 4.4 trig fns, unit circle
- # 22 4.5 sinusoidal graphs
- # 23 4.6 other trig graphs
- # 24 4.7 inverse trig graphs

Chapter 5 - Analytical Trig

- # 25 5.1 trig identities
- # 26 5.2 proving trig identities
- Tutorial , test # 3 lessons 19 - 26
- # 27 5.3 solving trig equations
- # 28 5.4 sum & difference identities
- # 29 5.5 double & half-angle identities
- Take home test # 3

Chapter 10 - Conics

- # 30 notes circles
- # 31 10.2 parabolas
- # 32 10.3 ellipses
- # 33 10.4 hyperbolas
- # 34 notes systems of quadratics
- Tutorial, test # 4, lessons 27 - 34

Calculus Booklet

35 limits

36 secant line, average velocity

37 tangent line

38 derivative

39 derivatives rules, instantaneous velocity

40 graphing using calculus

41 max-min problems

Tutorial, test # 5 lessons 35 - 41

Review

Final Test