Complex Analysis

Math 214 Spring 2004 © 2004 Ron Buckmire

Fowler 112 MWF 3:30pm - 4:25pm http://faculty.oxy.edu/ron/math/312/04/

Class 18: Wednesday March 3

SUMMARY Review for Exam 1 **CURRENT READING** Saff & Snider, $\S1.1$, $\S1.2$, $\S1.3$, $\S1.4$ $\S1.5$, $\S1.6$, $\S2.1$, $\S2.2$, $\S2.3$, $\S2.4$, $\S2.5$, $\S2.7$, $\S3.2$, $\S3.3$, $\S3.4$

Arithmetic Operations on Complex Numbers

Graphical Representation of Complex Numbers and Inequalities

Polar and Exponential Forms of Complex Numbers

Roots of a Complex Numbers

Points Sets in the Complex Plane

Complex Functions of a Complex Variable

Limits of Complex Functions and the Point at Infinity

Continuity, Differentiability, and Analyticity

The Cauchy-Riemann Equations

Harmonic Functions and Laplace's Equation

The Complex Exponential Function

The Complex Trigonometric and Hyperbolic Trigonometric Functions

The Complex Logarithm

Branch Cuts

Application of Complex Variables: Boundary Value Problems

Complex Exponents

(YOUR FAVORITE TOPIC:)