

Math 312 (Complex Analysis) – Week 12
Spring Term 2004
BUCKMIRE

Monday April 12 *Class 31:*

Application of Residue Calculus to Summing Infinite Series. We shall learn how we can use our information about residues to evaluate exactly certain classes of infinite series: connecting Complex Analysis to Number Theory!

Reading:

Saff & Snider, (Section 6.3, page 327-328)

Wednesday April 14 *Class 32:*

Cauchy Principal Value. We shall look at another important application of Contour Integration: to the evaluation of certain kind of improper integrals of the first kind (where the domain of integration is unbounded) and define the Cauchy Principal Value of a Real Integral.

Reading:

Saff & Snider, (Section 6.3)

Friday April 16 *Class 33:*

Introduction to Bilinear Transformations. We will return to the question of mapping by introducing the most useful of elementary complex mapping, the bilinear transformation.

Reading:

Saff & Snider, (Section 7.3)

Homework:

Quiz #11 **DUE MON APR 19**
HOMEWORK SET # 11 DUE TODAY