

Lecture 8: Harmonic Functions.

We did sections 2.2 Introduction, 2.2.2 and 2.2.3ab(def) in Evans book, giving the classical properties of harmonic functions. We already done 2.2.1 Fundamental solution.

Physical interpretation of Laplace equation.

Mean value formula for harmonic functions with proof.

Strong Maximum principle for harmonic functions with proof.

Uniqueness for the Dirichlet problem with proof.

Interior smoothness with proof.

(Estimates on Derivatives) just mentioned the result.

(Analyticity) just mentioned the result .

Problems from Evans page 85-86.. Problems 2, 3, 4, 6