

Math 524

Homework due 11/8/00

Problem 1. Let (X, \mathcal{M}, μ) be a measure space. Let $f \in L^+$ be such that $\int f d\mu < \infty$. Prove that given $\epsilon > 0$ there is $\delta > 0$ such that

$$\int_E f d\mu < \epsilon \text{ whenever } \mu(E) < \delta$$

Problems from Folland:

Chapter 2, Section 2: problems 13, 14, 15, 16.