## MATH 4280 Homework Assignment 4

Due on Wednesday, October 11th, at the BEGINNING of class.

Section 2.1: 6, 8, 10 (For 10, please ONLY prove part (a) of Proposition 2.11.)

**Section 2.2**: 12, 14 (For 12, I don't see how the hint helps, so I'd ignore it. A more useful hint might be to consider the sets  $\{x : f(x) > \frac{1}{n}\}$ . For 14, please ONLY prove that  $\lambda$  is a measure, NOT the formula for  $\int g d\lambda$ . You can use the Monotone Convergence Theorem though we have not yet proved it.)