

MA533 Partial Differential Equations

Fall 2011

Problem Set 4

October 3, 2011

DUE: Wednesday, 12 October 2011

- (1) Evans, page 85, # 5, first edition, on subharmonic functions. Just do parts a, b, and c.
- (2) Evans, page 86, # 8, first edition, on Theorem 15 for the solution of Laplace's equation for the ball.
- (3) Evans, page 87, # 12, first edition, on scaling of the space and time variables in the heat equation.
- (4) Evans, page 87, # 13, on the fundamental solution to the heat equation in one space dimension.