MA633 Partial Differential Equations II
Spring 2012
Problem Set 2
February 2, 2012
DUE: Monday, 13 February 2012

1) Prove that translations are continuous in $W^{k,p}(\mathbb{R}^n)$.
2) Problems 7, page 306 of Evans, on the trace inequality.
3) Problem 9, page 307 of Evans, on $L^2$-bounds on derivatives.
4) Problem 11, page 307 of Evans, on the behavior of $U \in W^{1,p}$-functions with zero derivatives.