## MA 351: (PART OF) ASSIGNMENT 1 DUE SEPTEMBER 11, 2013

For a function  $f: X \to Y$  and subsets A and B in X prove that (1)  $f(A \cap B) = f(A) \cap f(B)$ (2)  $f^{-1}(A \setminus B) = f^{-1}(A) \setminus f^{-1}(B).$ 

Date: September 6, 2013.