## MAT 511 Fundamental Concepts of Math

## Problem Set 8

due Thursday, Nov 6

Please prove all your answers. Short and elegant proofs are encouraged but not required.

This time all the questions are from the textbook:

Section 2.2: prove Theorem 2.7, parts dh

Section 3.1: 4ab, 3df (also illustrate both parts by a picture on the plane, assuming that all the sets are intervals in  $\mathbb{R}$ ), 20 c

Section 3.2: 1 hijl (also determine which of these are equivalence relations), 9