## Homework 3, MATH 9010

Due on Thursday, September 15 Shuai Wei

**Problem 4** Suppose that  $B_n, n \ge 1$  is a countable partition of  $\Omega$  and define  $\mathcal{B} = \sigma(B_n, n \ge 1)$ . Show a function  $X : \Omega \mapsto (-\infty, \infty]$