## Math 525 - Probability

## ${\rm Quiz}\ 2$

1. Assume that A and B are not disjoint. Show that P(A|B) = P(B|A) if and only if P(A) = P(B).

2. Let A and B be independent events. Show that  $A^c$  and B are independent, and deduce that  $A^c$  and  $B^c$  are independent.