

Mathematics/Statistics 511

Quiz #5

Name: _____

1. Define what it means for events B_1, B_2, \dots, B_m to partition the sample space S .
2. Let events B_1, B_2, \dots, B_m partition the sample space S and assume that $P(B_i) \neq 0$ for all i . Then for any event A with $P(A) \neq 0$ state Bayes' Law for computing $P(B_k|A)$.
3. If $S = B_1 \cup B_2$ with $B_1 \cap B_2 = \emptyset$ and A is an event with $P(A) \neq 0$ then give the derivation of Bayes' Law for $P(B_2|A)$.