

Mathematics/Statistics 511

Quiz #4

Name: _____

1. Define the conditional probability, $P(A|B)$, that A occurs given that B occurs.
2. What is the multiplication rule that relates the probabilities $P(A \cap B)$, $P(B)$, and $P(A|B)$?
3. Let B be an event so that $B = B_1 \cup B_2$ where B_1 and B_2 are mutually exclusive. Then for any A , give a formula relating $P(A \cap B)$, $P(B_1)$, $P(B_2)$, $P(A|B_1)$ and $P(A|B_2)$.