

What is the definition of a conditional probability?

What is the definition of disjoint and the definition of independent?

What is the general Multiplication Rule (the probability of an intersection of sets)?

Derive the Law of Total Probability (the probability of an event by partitioning) and Bayes Formula (the conditional probability without knowing the prior i.e. denominator of Bayes rule).

False Positive Problem: Calculate the probability that a random person who has tested positive for the disease actually has it. The frequency of the disease in the population is 0.01, the rate of false positives is 0.01 and false negatives is 0.001. **DRAW A PICTURE**