1. A medical test for HIV infection has three possible test results: positive (), negative (),

 and inconclusive (). Given that a person is infected, the probabilities of these outcomes

 are: 0.85, 0.10, and 0.05, respectively. Given that a person is **not** infected, the probabilities

 of these outcomes are: 0.02, 0.90, and 0.08. Assume that 2% of the general population are

 infected with HIV. A random person from the population is tested. [Hint: let  be the event

 that this person is infected. So and ]

 (a) Find 

 (b) Find 

 (c) Find 