1. P(positive) = P(positive|sufferer) + P(positive|non-sufferer) = 0.98 \* 0.005 + (1-0.005) \* 0.1 = 0.1044

2. P(Correctly diagnose a sufferer of Thripshaw's) = 0.98

3. P(Correctly identify a non-sufferer of Thripshaw's) = 1-0.1 = 0.9

4. P(Misclassify the person) =(1- P(correctly classify the person)) = 1 – (0.995 \* 0.9 + 0.005\*0.98) = 0.0996