HW #4

1. In problem #1 in HW#3, show that the code has the minimum Hamming distance 4.

2. Find out all syndrome patterns in the above problem.

3. Determine the weight distribution of (8,4) linear code (mentioned in problem #1 in HW#3). Let the transition probability of a BSC be $p = 10^{-2}$. Compute the probability of an undetected error of this code.