

Computer Networks 22/23

Homework 4

Problem 1 (50%)

Given a message $\mathbf{d} = 10011011$ and a generator polynomial $g(x) = x^5 + x^3 + 1$, find the codeword to be transmitted.

Problem 2 (50%)

Encode the message 11001100 using the Hamming code. Assume the codeword bit at position 4 was changed during transmission, and check if the receiver detects/corrects the error.